

# R76, Double Metallized Polypropylene Film, Radial, DC and Pulse Applications (Automotive Grade)

## Overview

The R76 series is constructed of polypropylene film and double metallized polyester film as electrodes with radial leads of tinned wire. The radial leads are electrically welded to the metal layer on the ends of the capacitor winding. The capacitor is encapsulated in a self-extinguishing solvent resistant plastic case with thermosetting resin material meeting UL 94 V-0 requirements. Two different winding constructions are used depending on voltage parameters. Please see the Performance Characteristics for more information.

Automotive grade devices (up to lead spacing 22.5 mm) meet the demanding Automotive Electronics Council's AEC-Q200 qualification requirements.

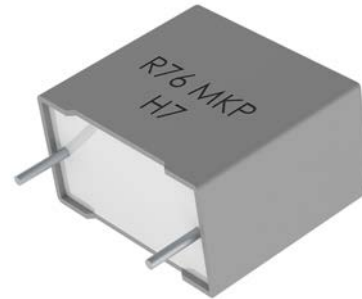
## Applications

Typical applications include resonant circuit, high frequency high current, snubber and silicon-controlled rectifier (SCR and IGBT) and SiC (e.g. MOSFET) commutation circuits as well as applications with high voltage and high current.

Not suitable for across-the-line application (see Suppressor Capacitors).

## Benefits

- Voltage range: 250 – 2,000 VDC
- Capacitance range: 100 pF – 12  $\mu$ F
- Lead Spacing: 7.5 mm – 37.5 mm
- Capacitance tolerance:  $\pm 2.5\%$ ,  $\pm 5\%$ ,  $\pm 10\%$
- Climatic category: 55/110/56 IEC 60068-1
- Operating temperature range of  $-55^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$
- RoHS compliance and lead-free terminations
- Tape & Reel packaging in accordance with IEC 60286-2
- Self-healing
- Automotive (AEC-Q200) grades available up to lead spacing 22.5 mm



## Part Number System

| R76                             | I                   | D                 | 1680                                                                                                                  | SE                         | 30           |    | K                     |
|---------------------------------|---------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------|--------------|----|-----------------------|
| Series                          | Rated Voltage (VDC) | Lead Spacing (mm) | Capacitance Code (pF)                                                                                                 | Packaging                  | Internal Use |    | Capacitance Tolerance |
| Double Metallized Polypropylene | I = 250             | D = 7.5           | The last three digits represent significant figures. The first digit specifies the total number of zeros to be added. | See Ordering Options Table | 00           | 50 | H = ±2.5% (*)         |
|                                 | M = 400             | F = 10            |                                                                                                                       |                            | 10           | 60 | J = ±5%               |
|                                 | P = 630             | I = 15            |                                                                                                                       |                            | 20           | 70 | K = ±10%              |
|                                 | Q = 1,000           | N = 22.5          |                                                                                                                       |                            | 30           | 80 |                       |
|                                 | T = 1,600           | R = 27.5          |                                                                                                                       |                            | 40           | L0 |                       |
|                                 | U = 2,000           | W = 37.5          |                                                                                                                       |                            |              |    |                       |

## Ordering Options Table

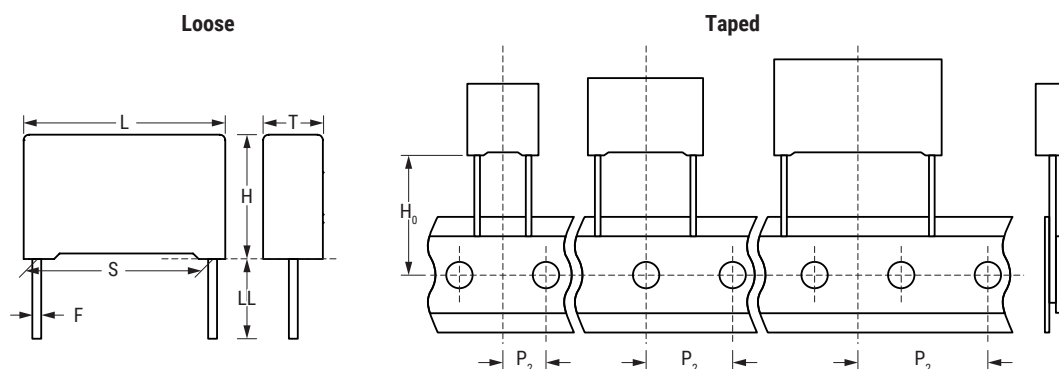
| Lead Spacing<br>Nominal (mm) | Type of Leads and Packaging                | Lead Length<br>(mm)       | Lead and<br>Packaging Code |
|------------------------------|--------------------------------------------|---------------------------|----------------------------|
| 7.5                          | <b>Standard Lead and Packaging Options</b> |                           |                            |
|                              | Bulk – Short Leads                         | 4 +2/-0                   | SE                         |
|                              | Ammo Pack                                  | H <sub>0</sub> = 18.5±0.5 | DQ                         |
|                              | <b>Other Lead and Packaging Options</b>    |                           |                            |
|                              | Tape & Reel (Standard Reel Ø 355 mm)       | H <sub>0</sub> = 18.5±0.5 | CK                         |
|                              | Bulk – Short Leads                         | 2.7 +0.5/-0               | JA                         |
|                              | Bulk – Short Leads                         | 3.5 +0.5/-0               | JB                         |
|                              | Bulk – Short Leads                         | 4.0 +0.5/-0               | JE                         |
|                              | Bulk – Short Leads                         | 3.2 +0.3/-0.2             | JH                         |
|                              | Bulk – Long Leads                          | 18±1                      | JM                         |
|                              | Bulk – Long Leads                          | 17 +1/-2                  | Z3                         |
| 10<br>15<br>22.5             | <b>Standard Lead and Packaging Options</b> |                           |                            |
|                              | Bulk (Bag) – Short Leads                   | 4 +2/-0                   | SE                         |
|                              | Ammo Pack                                  | H <sub>0</sub> = 18.5±0.5 | DQ                         |
|                              | <b>Other Lead and Packaging Options</b>    |                           |                            |
|                              | Tape & Reel (Standard Reel Ø 355 mm)       | H <sub>0</sub> = 18.5±0.5 | GY                         |
|                              | Tape & Reel (Large Reel Ø 500 mm)          | H <sub>0</sub> = 18.5±0.5 | CK                         |
|                              | Bulk (Bag) – Short Leads                   | 2.7 +0.5/-0               | JA                         |
|                              | Bulk (Bag) – Short Leads                   | 3.5 +0.5/-0               | JB                         |
|                              | Bulk (Bag) – Short Leads                   | 10±1                      | JC                         |
|                              | Bulk (Bag) – Short Leads                   | 4.0 +0.5/-0               | JE                         |
|                              | Bulk (Bag) – Short Leads                   | 3.2 +0.3/-0.2             | JH                         |
|                              | Bulk (Bag) – Long Leads                    | 18±1                      | JM                         |
|                              | Bulk (Bag) – Long Leads                    | 30 +5/-0                  | 40                         |
|                              | Bulk (Bag) – Long Leads                    | 25 +2/-1                  | 50                         |
| 27.5                         | <b>Standard Lead and Packaging Options</b> |                           |                            |
|                              | Bulk (Tray) – Short Leads                  | 4 +2/-0                   | SE                         |
|                              | <b>Other Lead and Packaging Options</b>    |                           |                            |
|                              | Tape & Reel (Standard Reel Ø 355 mm)       | H <sub>0</sub> = 18.5±0.5 | GY                         |
|                              | Tape & Reel (Large Reel Ø 500 mm)          | H <sub>0</sub> = 18.5±0.5 | CK <sup>1</sup>            |
|                              | Bulk (Tray) – Short Leads                  | 3.5 +0.5/-0               | JB                         |
|                              | Bulk (Tray) – Short Leads                  | 4.0 +0.5/-0               | JE                         |
|                              | Bulk (Tray) – Short Leads                  | 3.2 +0.3/-0.2             | JH                         |
|                              | Bulk (Tray) – Long Leads                   | 30 +5/-0                  | 40                         |
|                              | Bulk (Tray) – Long Leads                   | 25 +2/-1                  | 50                         |

<sup>1</sup> = Not for all sizes, see "Packaging Quantities" table.

## Ordering Options Table cont.

| Lead Spacing<br>Nominal (mm) | Type of Leads and Packaging                | Lead Length<br>(mm) | Lead and<br>Packaging Code |
|------------------------------|--------------------------------------------|---------------------|----------------------------|
| 37.5                         | <b>Standard Lead and Packaging Options</b> |                     |                            |
|                              | Bulk (Tray) – Short Leads                  | 4 +2/-0             | SE                         |
|                              | <b>Other Lead and Packaging Options</b>    |                     |                            |
|                              | Bulk (Tray) – Short Leads                  | 3.5 +0.5/-0         | JB                         |
|                              | Bulk (Tray) – Short Leads                  | 4.0 +0.5/-0         | JE                         |
|                              | Bulk (Tray) – Short Leads                  | 3.2 +0.3/-0.2       | JH                         |
|                              | Bulk (Tray) – Long Leads                   | 30 +5/-0            | 40                         |
|                              | Bulk (Tray) – Long Leads                   | 25 +2/-1            | 50                         |

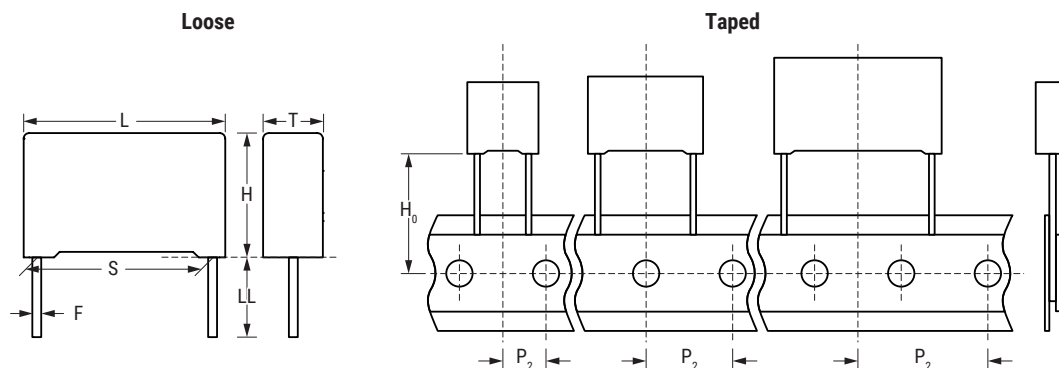
## Dimensions – Millimeters



| S       |           | T       |           | H       |           | L       |           | F       |           |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| 7.5     | ±0.4      | 3.0     | +0.1/-0.5 | 8.0     | +0.1/-0.5 | 10.0    | +0.2/-0.5 | 0.5     | ±0.05     |
| 7.5     | ±0.4      | 4.0     | +0.1/-0.5 | 9.0     | +0.1/-0.5 | 10.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 7.5     | ±0.4      | 5.0     | +0.1/-0.5 | 10.5    | +0.1/-0.5 | 10.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 7.5     | ±0.4      | 6.0     | +0.1/-0.5 | 12.0    | +0.1/-0.5 | 10.5    | +0.2/-0.5 | 0.6     | ±0.05     |
| 10.0    | ±0.4      | 4.0     | +0.2/-0.5 | 9.0     | +0.1/-0.5 | 13.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 10.0    | ±0.4      | 5.0     | +0.2/-0.5 | 11.0    | +0.1/-0.5 | 13.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 10.0    | ±0.4      | 6.0     | +0.2/-0.5 | 12.0    | +0.1/-0.5 | 13.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 15.0    | ±0.4      | 4.0     | +0.2/-0.5 | 10.0    | +0.1/-0.5 | 18.0    | +0.3/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 5.0     | +0.2/-0.5 | 11.0    | +0.1/-0.5 | 18.0    | +0.3/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 6.0     | +0.2/-0.5 | 12.0    | +0.1/-0.5 | 18.0    | +0.3/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 7.5     | +0.2/-0.5 | 13.5    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 8.5     | +0.2/-0.5 | 14.5    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 9.0     | +0.2/-0.5 | 12.5    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 10.0    | +0.2/-0.5 | 16.0    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |

Note: See Ordering Options Table for lead length (LL/H<sub>0</sub>) options.

## Dimensions – Millimeters cont.



| S       |           | T       |           | H       |           | L       |           | F       |           |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| 15.0    | ±0.4      | 11.0    | +0.2/-0.5 | 19.0    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 13.0    | +0.2/-0.5 | 12.0    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 6.0     | +0.2/-0.5 | 15.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 7.0     | +0.2/-0.5 | 16.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 8.5     | +0.2/-0.5 | 17.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 10.0    | +0.2/-0.5 | 18.5    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 11.0    | +0.2/-0.5 | 20.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 13.0    | +0.2/-0.5 | 22.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 14.5    | +0.2/-0.5 | 29.5    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 9.0     | +0.2/-0.7 | 17.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 11.0    | +0.2/-0.7 | 20.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 13.0    | +0.2/-0.7 | 22.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 13.0    | +0.2/-0.7 | 25.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 14.0    | +0.2/-0.7 | 28.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 16.0    | +0.2/-0.7 | 30.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 18.0    | +0.2/-0.7 | 33.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 22.0    | +0.2/-0.7 | 37.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 24.0    | +0.2/-0.7 | 15.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 37.5    | ±0.4      | 11.0    | +0.3/-0.7 | 22.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 13.0    | +0.3/-0.7 | 24.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 16.0    | +0.3/-0.7 | 28.5    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 19.0    | +0.3/-0.7 | 32.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 20.0    | +0.3/-0.7 | 40.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 24.0    | +0.3/-0.7 | 44.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 24.0    | +0.3/-0.7 | 15.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 24.0    | +0.3/-0.7 | 19.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 30.0    | +0.3/-0.7 | 45.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |

**Note: See Ordering Options Table for lead length (LL/Ho) options.**

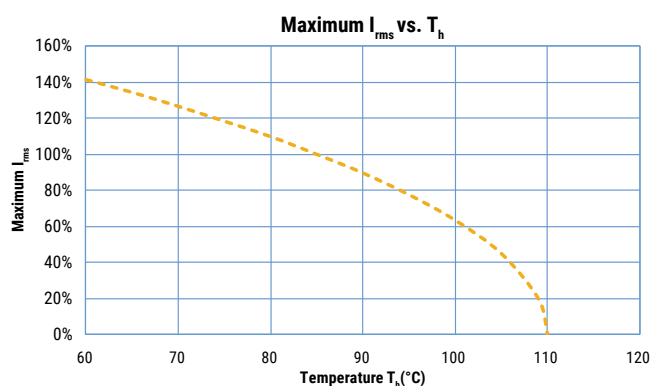
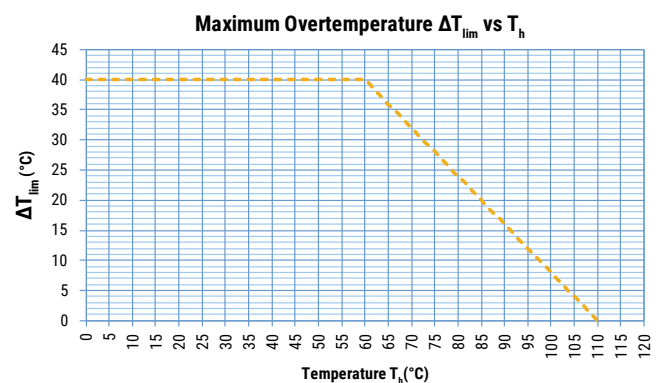
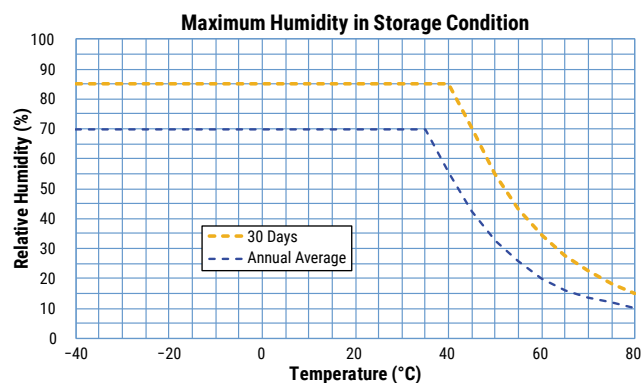
## Performance Characteristics

|                                              |                                                                                                                                                         |                    |                    |                    |                      |                      |                      |                      |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| Dielectric                                   | Polypropylene film                                                                                                                                      |                    |                    |                    |                      |                      |                      |                      |
| Plates                                       | Double sided metallized polyester film                                                                                                                  |                    |                    |                    |                      |                      |                      |                      |
| Winding                                      | Non-inductive type                                                                                                                                      |                    |                    |                    |                      |                      |                      |                      |
| Leads                                        | Tinned wire                                                                                                                                             |                    |                    |                    |                      |                      |                      |                      |
| Protection                                   | Plastic case, thermosetting resin filled. Box material is solvent resistant and flame retardant according to UL94.                                      |                    |                    |                    |                      |                      |                      |                      |
| Related Documents                            | IEC 60384-16                                                                                                                                            |                    |                    |                    |                      |                      |                      |                      |
| Sections                                     | 1                                                                                                                                                       |                    |                    |                    | 2                    |                      |                      |                      |
| Rated Voltage $V_R$                          | 250 VDC<br>180 VAC                                                                                                                                      | 400 VDC<br>250 VAC | 630 VDC<br>250 VAC | 630 VDC<br>400 VAC | 1,000 VDC<br>400 VAC | 1,000 VDC<br>600 VAC | 1,600 VDC<br>650 VAC | 2,000 VDC<br>700 VAC |
| Capacitance Range ( $\mu F$ )                | 0.0068 – 12                                                                                                                                             | 0.0027 – 8.2       | 0.00068 – 0.012    | 0.0039 – 3.9       | 0.00022 – 0.0033     | 0.00047 – 2.2        | 0.0022 – 1.2         | 0.0001 – 0.56        |
| Capacitance Values                           | E12 series (IEC 60063) measured at 1 kHz and $+20 \pm 1^\circ C$                                                                                        |                    |                    |                    |                      |                      |                      |                      |
| Capacitance Tolerance                        | $\pm 2.5\%$ , $\pm 5\%$ , $\pm 10\%$                                                                                                                    |                    |                    |                    |                      |                      |                      |                      |
| Operating Temperature Range                  | $-55^\circ C$ to $+110^\circ C$                                                                                                                         |                    |                    |                    |                      |                      |                      |                      |
| Rated Temperature $T_R$                      | $+85^\circ C$ for $V_R$ (DC and AC)                                                                                                                     |                    |                    |                    |                      |                      |                      |                      |
| Voltage Derating                             | The following decreasing factor has to be applied on the rated voltage:<br>$+85^\circ C$ to $+110^\circ C$ : 1.25% per $^\circ C$ for $V_R$ (DC and AC) |                    |                    |                    |                      |                      |                      |                      |
| Climatic Category                            | 55/110/56 IEC 60068-1                                                                                                                                   |                    |                    |                    |                      |                      |                      |                      |
| Storage Conditions                           | Storage time: $\leq 24$ months from the date marked on the label package                                                                                |                    |                    |                    |                      |                      |                      |                      |
|                                              | Average relative humidity per year $\leq 70\%$                                                                                                          |                    |                    |                    |                      |                      |                      |                      |
|                                              | RH $\leq 85\%$ for 30 days randomly distributed throughout the year                                                                                     |                    |                    |                    |                      |                      |                      |                      |
|                                              | Dew is absent                                                                                                                                           |                    |                    |                    |                      |                      |                      |                      |
|                                              | Temperature: $-40$ to $80^\circ C$ (see "Maximum Humidity in Storage Conditions" graph below)                                                           |                    |                    |                    |                      |                      |                      |                      |
| Test Voltage                                 | $1.6 \times V_R$ VDC for 2 seconds (between terminations) at $+25^\circ C \pm 5^\circ C$                                                                |                    |                    |                    |                      |                      |                      |                      |
| Capacitance Drift                            | Maximum 0.5% after a 2 year storage period at a temperature of $+10^\circ C$ to $+40^\circ C$ and a relative humidity of 40% to 60%                     |                    |                    |                    |                      |                      |                      |                      |
| Maximum Pulse Steepness                      | dV/dt according to Table 1. For working voltages lower than rated voltage ( $V < V_R$ ), the specified dV/dt can be multiplied by the factor $V_R/V$ .  |                    |                    |                    |                      |                      |                      |                      |
| Reliability<br>(Reference IEC 61709)         | Operational life $> 200,000$ hours at $85^\circ C$                                                                                                      |                    |                    |                    |                      |                      |                      |                      |
|                                              | Failure rate $\leq 1$ FIT, $T = +40^\circ C$ , $V = 0.5 \times V_R$                                                                                     |                    |                    |                    |                      |                      |                      |                      |
|                                              | Failure criteria: open or short circuit, cap. change $> 10\%$ , DF 2 times the catalog limits, IR $< 0.005 \times$ initial limit                        |                    |                    |                    |                      |                      |                      |                      |
| Temperature Coefficient                      | $-(200 \pm 100)$ ppm/ $^\circ C$ at 1 kHz                                                                                                               |                    |                    |                    |                      |                      |                      |                      |
| Self-Inductance<br>(Lead Length $\sim 2$ mm) | Lead Spacing (mm)                                                                                                                                       | 7.5                | 10                 | 15                 | 22.5                 | 27.5                 | 37.5                 |                      |
|                                              | L (nH) $\approx$                                                                                                                                        | 8                  | 9                  | 10                 | 16                   | 18                   | 20                   |                      |
|                                              | Max 1 nH per 1 mm lead and capacitor length                                                                                                             |                    |                    |                    |                      |                      |                      |                      |

## Performance Characteristics cont.

| Dissipation Factor $\tan\delta$ | Measured at 25°C ±5°C                                                 |                          |                                                                                                          |                     |
|---------------------------------|-----------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------|---------------------|
|                                 | Frequency                                                             | $C \leq 0.1 \mu\text{F}$ | $0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$                                                               | $C > 1 \mu\text{F}$ |
|                                 | 1 kHz                                                                 | $\leq 0.03\%$            | $\leq 0.03\%$                                                                                            | $\leq 0.04\%$       |
|                                 | 10 kHz                                                                | $\leq 0.04\%$            | $\leq 0.06\%$                                                                                            | –                   |
|                                 | 100 kHz                                                               | $\leq 0.10\%$            | –                                                                                                        | –                   |
| Insulation Resistance           | Measured at +25°C, 100 VDC 60 seconds                                 |                          |                                                                                                          |                     |
|                                 | Minimum Values Between Terminals                                      |                          |                                                                                                          |                     |
|                                 | $C \leq 0.33 \mu\text{F}$                                             |                          | $C > 0.33 \mu\text{F}$                                                                                   |                     |
|                                 | $\geq 100,000 \text{ M}\Omega$<br>( $\geq 500,000 \text{ M}\Omega$ )* |                          | $\geq 30,000 \text{ M}\Omega \cdot \mu\text{F}$<br>( $\geq 150,000 \text{ M}\Omega \cdot \mu\text{F}$ )* |                     |

\* Typical value

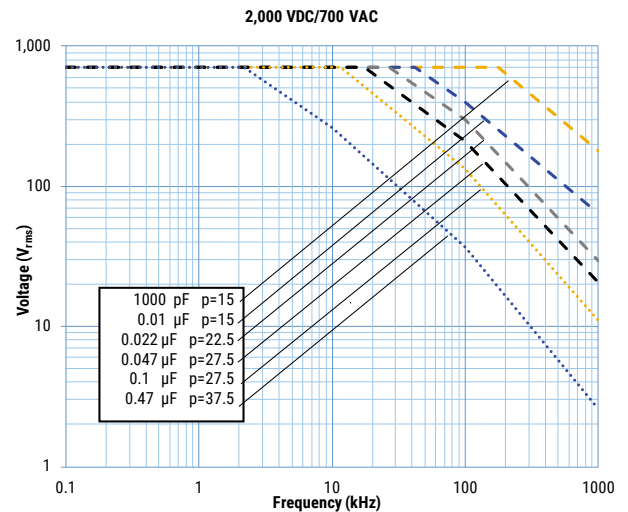
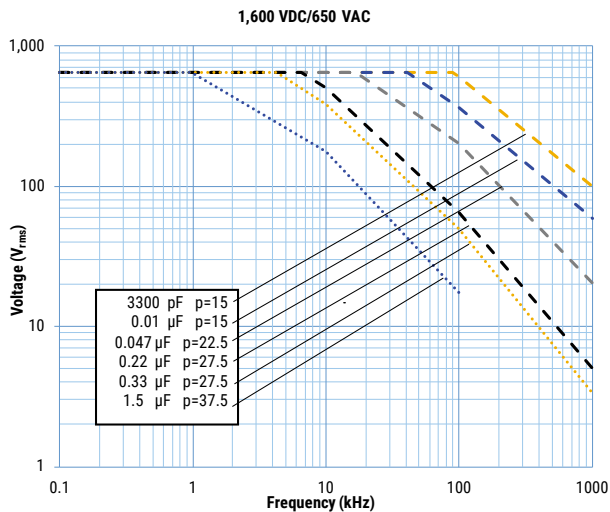
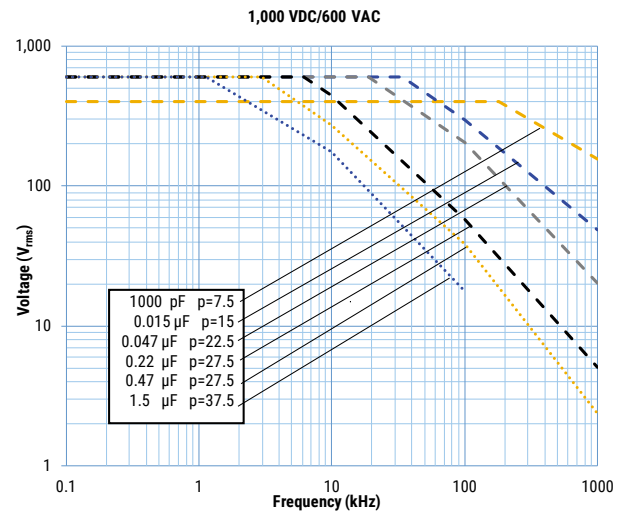
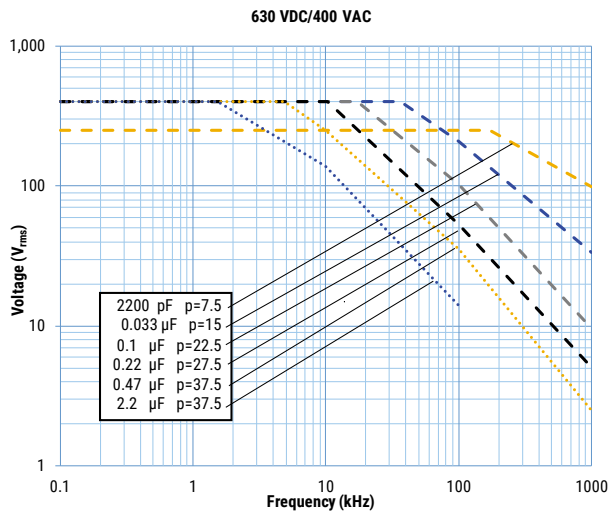
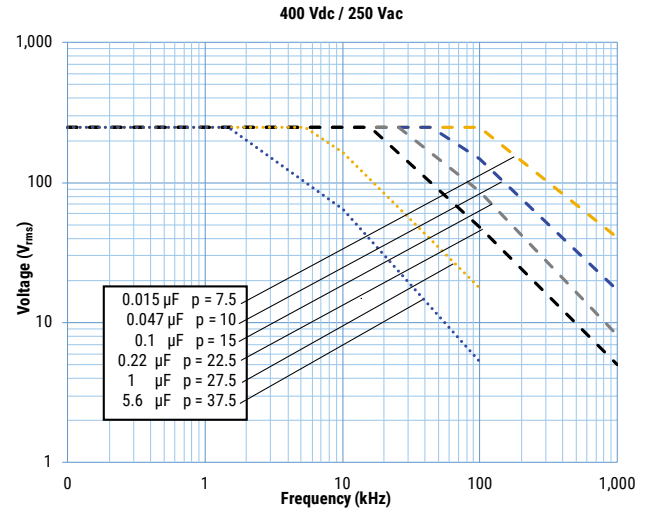
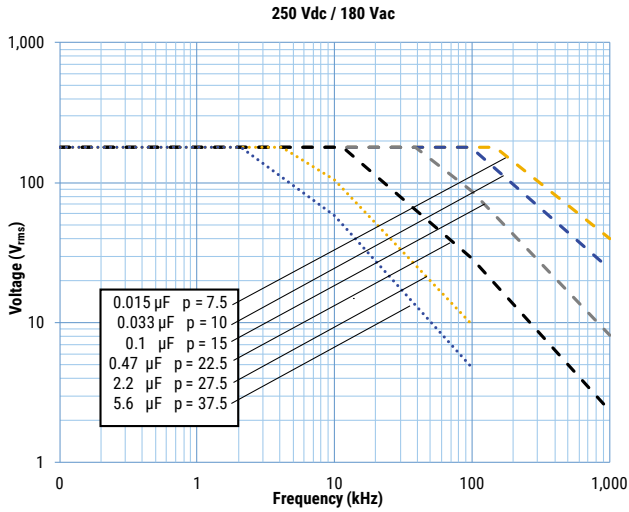


$T_h$  is the maximum ambient temperature surrounding the capacitor or hottest contact point (e.g. tracks), whichever is higher, in the worst operation conditions in °C.

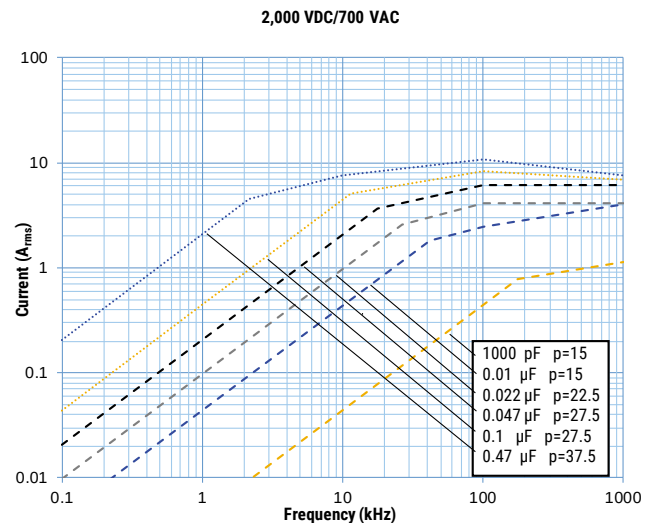
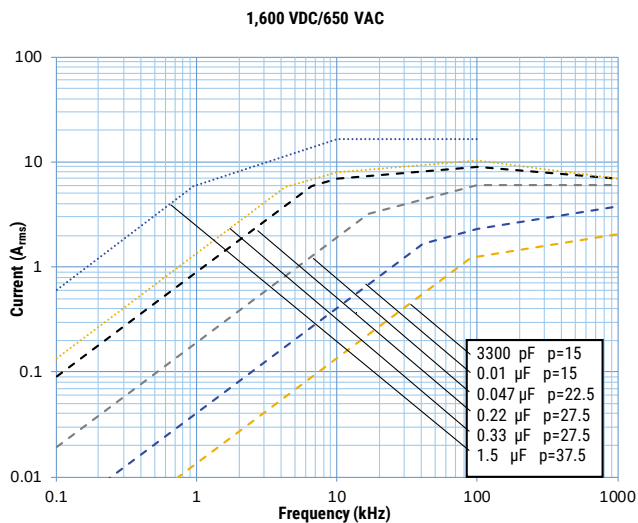
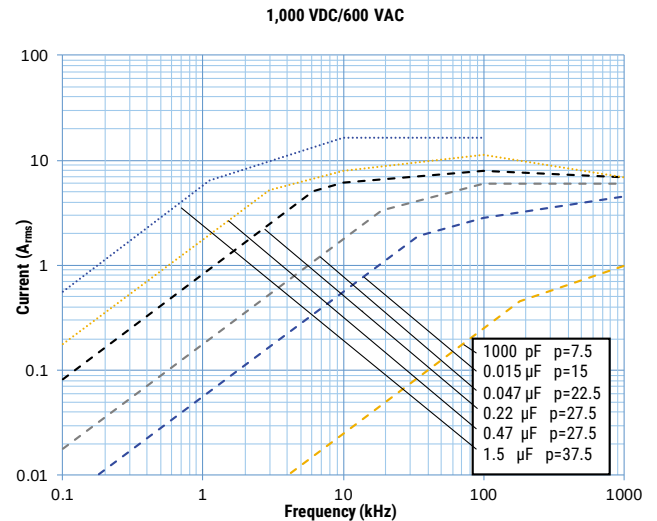
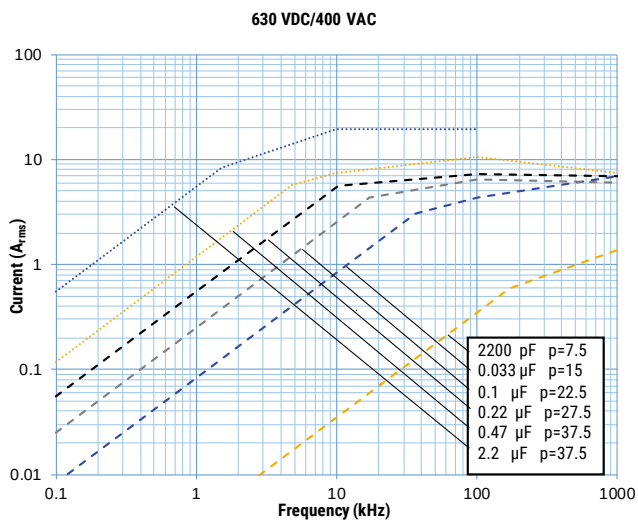
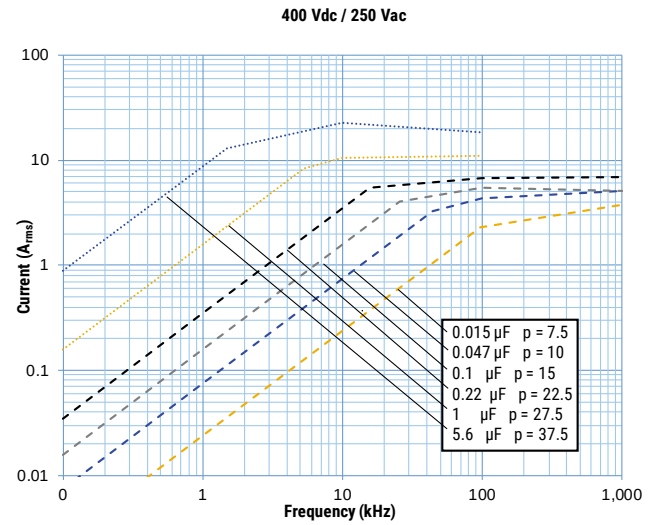
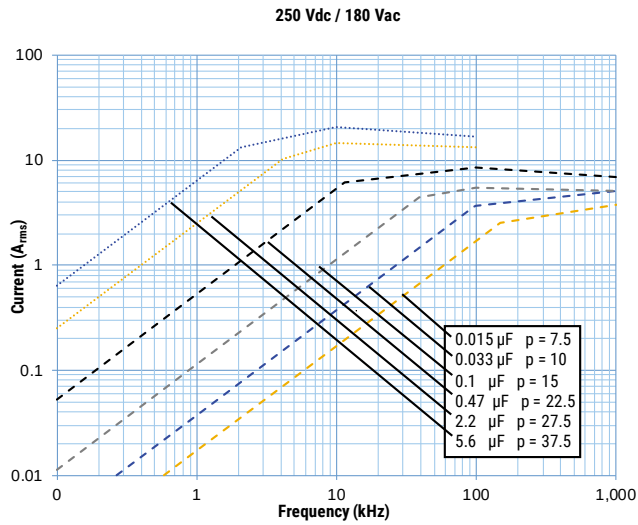
## Qualification

Automotive Grade products meet or exceed the requirements outlined by the Automotive Electronics Council. Details regarding test methods and conditions are referenced in document AEC-Q200, Stress Test Qualification for Passive Components. For additional information regarding the Automotive Electronics Council and AEC-Q200, please visit their website at [www.aecouncil.com](http://www.aecouncil.com).

## Maximum Voltage ( $V_{rms}$ ) Versus Frequency (Sinusoidal Waveform/ $T_h \leq 85^\circ\text{C}$ )



## Maximum Current ( $I_{rms}$ ) Versus Frequency (Sinusoidal Waveform/ $T_h \leq 85^\circ\text{C}$ )





## Environmental Test Data

| Damp Heat, Steady State Test      | Test Conditions:                                             |                                                     | Performances                                                                                                                                                                                                        |
|-----------------------------------|--------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | Temperature:<br>Relative humidity (RH):<br>Test duration:    | +40°C ±2°C<br>93% ±2%<br>56 days                    | $ \Delta C/C  \leq 2\%$ ,<br>$\Delta \tan \delta \leq 0.001$ at 1 kHz<br>IR after test $\geq 50\%$ of initial limit                                                                                                 |
| Endurance Test                    | Test Conditions                                              |                                                     | Performances                                                                                                                                                                                                        |
|                                   | Temperature:<br>Voltage applied:<br>Test duration:           | +85°C ±2°C<br>$1.25 \times V_R$ (DC)<br>2,000 hours | $ \Delta C/C  \leq 2\%$ ,<br>$\Delta \tan \delta \leq 0.001$ at 10 kHz for $C \leq 1 \mu\text{F}$<br>$\Delta \tan \delta \leq 0.001$ at 1 kHz for $C > 1 \mu\text{F}$<br>IR after test $\geq 50\%$ of initial limit |
| Resistance to Soldering Heat Test | Test Conditions                                              |                                                     | Performances                                                                                                                                                                                                        |
|                                   | Solder bath temperature:<br>Dipping time (with heat screen): | 260°C ±5°C<br>10 seconds ±1 second                  | $ \Delta C/C  \leq 1\%$ ,<br>$\Delta \tan \delta \leq 0.001$ at 10 kHz for $C \leq 1 \mu\text{F}$<br>$\Delta \tan \delta \leq 0.001$ at 1 kHz for $C > 1 \mu\text{F}$<br>IR after test $\geq$ initial limit         |

## Environmental Compliance

All KEMET pulse capacitors are RoHS compliant.



Table 1 – Ratings &amp; Part Number Reference

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 250 | 180 | 0.0068         | 3.0              | 8.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 7               | 8                   | 94         | 0.8                      | 98              | 76ID1680(1)30(2)           | R76ID1680(1)30(2)    |
| 250 | 180 | 0.0082         | 3.0              | 8.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 9               | 8                   | 78         | 0.9                      | 98              | 76ID1820(1)30(2)           | R76ID1820(1)30(2)    |
| 250 | 180 | 0.01           | 3.0              | 8.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 11              | 8                   | 64         | 1.1                      | 98              | 76ID2100(1)30(2)           | R76ID2100(1)30(2)    |
| 250 | 180 | 0.012          | 4.0              | 9.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 13              | 8                   | 53         | 1.4                      | 88              | 76ID2120(1)40(2)           | R76ID2120(1)40(2)    |
| 250 | 180 | 0.015          | 4.0              | 9.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 17              | 8                   | 42         | 1.7                      | 88              | 76ID2150(1)40(2)           | R76ID2150(1)40(2)    |
| 250 | 180 | 0.018          | 4.0              | 9.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 20              | 8                   | 35         | 2.0                      | 88              | 76ID2180(1)40(2)           | R76ID2180(1)40(2)    |
| 250 | 180 | 0.022          | 4.0              | 9.0  | 10.0 | 7.5              | 1,100        | 550,000                                 | 24              | 8                   | 29         | 2.5                      | 88              | 76ID2220(1)40(2)           | R76ID2220(1)40(2)    |
| 250 | 180 | 0.027          | 5.0              | 10.5 | 10.0 | 7.5              | 1,100        | 550,000                                 | 30              | 8                   | 24         | 3.1                      | 78              | 76ID2270(1)40(2)           | R76ID2270(1)40(2)    |
| 250 | 180 | 0.033          | 5.0              | 10.5 | 10.0 | 7.5              | 1,100        | 550,000                                 | 36              | 8                   | 19         | 3.6                      | 78              | 76ID2330(1)40(2)           | R76ID2330(1)40(2)    |
| 250 | 180 | 0.039          | 6.0              | 12.0 | 10.5 | 7.5              | 1,100        | 550,000                                 | 43              | 8                   | 16         | 4.2                      | 69              | 76ID2390(1)30(2)           | R76ID2390(1)30(2)    |
| 250 | 180 | 0.047          | 6.0              | 12.0 | 10.5 | 7.5              | 1,100        | 550,000                                 | 52              | 8                   | 14         | 4.6                      | 69              | 76ID2470(1)30(2)           | R76ID2470(1)30(2)    |
| 250 | 180 | 0.027          | 4.0              | 9.0  | 13.0 | 10.0             | 1,000        | 500,000                                 | 27              | 9                   | 24         | 3.1                      | 79              | 76IF2270(1)30(2)           | R76IF2270(1)30(2)    |
| 250 | 180 | 0.033          | 4.0              | 9.0  | 13.0 | 10.0             | 1,000        | 500,000                                 | 33              | 9                   | 19         | 3.6                      | 79              | 76IF2330(1)30(2)           | R76IF2330(1)30(2)    |
| 250 | 180 | 0.039          | 4.0              | 9.0  | 13.0 | 10.0             | 1,000        | 500,000                                 | 39              | 9                   | 16         | 3.9                      | 79              | 76IF2390(1)30(2)           | R76IF2390(1)30(2)    |
| 250 | 180 | 0.047          | 5.0              | 11.0 | 13.0 | 10.0             | 1,000        | 500,000                                 | 47              | 9                   | 14         | 4.6                      | 69              | 76IF2470(1)30(2)           | R76IF2470(1)30(2)    |
| 250 | 180 | 0.056          | 5.0              | 11.0 | 13.0 | 10.0             | 1,000        | 500,000                                 | 56              | 9                   | 20         | 3.8                      | 69              | 76IF2560(1)30(2)           | R76IF2560(1)30(2)    |
| 250 | 180 | 0.068          | 6.0              | 12.0 | 13.0 | 10.0             | 1,000        | 500,000                                 | 68              | 9                   | 16         | 4.4                      | 64              | 76IF2680(1)30(2)           | R76IF2680(1)30(2)    |
| 250 | 180 | 0.082          | 6.0              | 12.0 | 13.0 | 10.0             | 1,000        | 500,000                                 | 82              | 9                   | 14         | 4.8                      | 64              | 76IF2820(1)30(2)           | R76IF2820(1)30(2)    |
| 250 | 180 | 0.068          | 5.0              | 11.0 | 18.0 | 15.0             | 550          | 275,000                                 | 37              | 10                  | 16         | 4.5                      | 60              | 76II2680(1)30(2)           | R76II2680(1)30(2)    |
| 250 | 180 | 0.082          | 5.0              | 11.0 | 18.0 | 15.0             | 550          | 275,000                                 | 45              | 10                  | 14         | 4.9                      | 60              | 76II2820(1)30(2)           | R76II2820(1)30(2)    |
| 250 | 180 | 0.1            | 5.0              | 11.0 | 18.0 | 15.0             | 550          | 275,000                                 | 55              | 10                  | 11         | 5.5                      | 60              | 76II3100(1)30(2)           | R76II3100(1)30(2)    |
| 250 | 180 | 0.12           | 6.0              | 12.0 | 18.0 | 15.0             | 550          | 275,000                                 | 66              | 10                  | 13         | 5.2                      | 56              | 76II3120(1)30(2)           | R76II3120(1)30(2)    |
| 250 | 180 | 0.15           | 6.0              | 12.0 | 18.0 | 15.0             | 550          | 275,000                                 | 83              | 10                  | 11         | 5.8                      | 56              | 76II3150(1)30(2)           | R76II3150(1)30(2)    |
| 250 | 180 | 0.18           | 7.5              | 13.5 | 18.0 | 15.0             | 550          | 275,000                                 | 99              | 10                  | 9          | 6.7                      | 51              | 76II3180(1)30(2)           | R76II3180(1)30(2)    |
| 250 | 180 | 0.18           | 9.0              | 12.5 | 18.0 | 15.0             | 550          | 275,000                                 | 99              | 10                  | 9          | 6.8                      | 50              | 76II3180(1)70(2)           | R76II3180(1)70(2)    |
| 250 | 180 | 0.22           | 7.5              | 13.5 | 18.0 | 15.0             | 550          | 275,000                                 | 121             | 10                  | 7          | 7.4                      | 51              | 76II3220(1)30(2)           | R76II3220(1)30(2)    |
| 250 | 180 | 0.22           | 9.0              | 12.5 | 18.0 | 15.0             | 550          | 275,000                                 | 121             | 10                  | 7          | 7.5                      | 50              | 76II3220(1)70(2)           | R76II3220(1)70(2)    |
| 250 | 180 | 0.27           | 8.5              | 14.5 | 18.0 | 15.0             | 550          | 275,000                                 | 149             | 10                  | 6          | 8.4                      | 48              | 76II3270(1)30(2)           | R76II3270(1)30(2)    |
| 250 | 180 | 0.27           | 9.0              | 12.5 | 18.0 | 15.0             | 550          | 275,000                                 | 149             | 10                  | 6          | 8.3                      | 50              | 76II3270(1)70(2)           | R76II3270(1)70(2)    |
| 250 | 180 | 0.33           | 10.0             | 16.0 | 18.0 | 15.0             | 550          | 275,000                                 | 182             | 10                  | 5          | 9.7                      | 44              | 76II3330(1)30(2)           | R76II3330(1)30(2)    |
| 250 | 180 | 0.33           | 13.0             | 12.0 | 18.0 | 15.0             | 550          | 275,000                                 | 182             | 10                  | 5          | 9.6                      | 45              | 76II3330(1)70(2)           | R76II3330(1)70(2)    |
| 250 | 180 | 0.39           | 10.0             | 16.0 | 18.0 | 15.0             | 550          | 275,000                                 | 215             | 10                  | 4          | 10.5                     | 44              | 76II3390(1)30(2)           | R76II3390(1)30(2)    |
| 250 | 180 | 0.47           | 11.0             | 19.0 | 18.0 | 15.0             | 550          | 275,000                                 | 259             | 10                  | 3          | 12.1                     | 40              | 76II3470(1)30(2)           | R76II3470(1)30(2)    |
| 250 | 180 | 0.22           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 150,000                                 | 66              | 16                  | 11         | 6.5                      | 43              | 76IN3220(1)00(2)           | R76IN3220(1)00(2)    |
| 250 | 180 | 0.27           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 150,000                                 | 81              | 16                  | 9          | 7.2                      | 43              | 76IN3270(1)30(2)           | R76IN3270(1)30(2)    |
| 250 | 180 | 0.33           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 150,000                                 | 99              | 16                  | 7          | 8.0                      | 43              | 76IN3330(1)30(2)           | R76IN3330(1)30(2)    |
| 250 | 180 | 0.39           | 7.0              | 16.0 | 26.5 | 22.5             | 300          | 150,000                                 | 117             | 16                  | 8          | 7.7                      | 41              | 76IN3390(1)30(2)           | R76IN3390(1)30(2)    |
| 250 | 180 | 0.47           | 7.0              | 16.0 | 26.5 | 22.5             | 300          | 150,000                                 | 141             | 16                  | 7          | 8.5                      | 41              | 76IN3470(1)30(2)           | R76IN3470(1)30(2)    |
| 250 | 180 | 0.56           | 8.5              | 17.0 | 26.5 | 22.5             | 300          | 150,000                                 | 168             | 16                  | 6          | 9.6                      | 38              | 76IN3560(1)30(2)           | R76IN3560(1)30(2)    |
| 250 | 180 | 0.68           | 10.0             | 18.5 | 26.5 | 22.5             | 300          | 150,000                                 | 204             | 16                  | 4.7        | 10.9                     | 36              | 76IN3680(1)30(2)           | R76IN3680(1)30(2)    |
| 250 | 180 | 0.82           | 10.0             | 18.5 | 26.5 | 22.5             | 300          | 150,000                                 | 246             | 16                  | 3.9        | 12.0                     | 36              | 76IN3820(1)30(2)           | R76IN3820(1)30(2)    |
| 250 | 180 | 1              | 11.0             | 20.0 | 26.5 | 22.5             | 300          | 150,000                                 | 300             | 16                  | 5.6        | 10.3                     | 34              | 76IN4100(1)30(2)           | R76IN4100(1)30(2)    |
| 250 | 180 | 1.2            | 13.0             | 22.0 | 26.5 | 22.5             | 300          | 150,000                                 | 360             | 16                  | 4.6        | 11.7                     | 31              | 76IN4120(1)30(2)           | R76IN4120(1)30(2)    |
| 250 | 180 | 1.5            | 14.5             | 29.5 | 26.5 | 22.5             | 300          | 150,000                                 | 450             | 16                  | 3.7        | 14.1                     | 27              | 76IN4150(1)30(2)           | R76IN4150(1)30(2)    |
| 250 | 180 | 1.8            | 14.5             | 29.5 | 26.5 | 22.5             | 300          | 150,000                                 | 540             | 16                  | 3.1        | 15.4                     | 27              | 76IN4180(1)30(2)           | R76IN4180(1)30(2)    |
| 250 | 180 | 0.82           | 9.0              | 17.0 | 32.0 | 27.5             | 200          | 100,000                                 | 164             | 18                  | 6          | 9.9                      | 35              | 76IR3820(1)30(2)           | R76IR3820(1)30(2)    |
| 250 | 180 | 1              | 11.0             | 20.0 | 32.0 | 27.5             | 200          | 100,000                                 | 200             | 18                  | 6          | 10.7                     | 31              | 76IR4100(1)30(2)           | R76IR4100(1)30(2)    |
| 250 | 180 | 1              | 24.0             | 15.0 | 32.0 | 27.5             | 200          | 100,000                                 | 200             | 18                  | 6          | 11.5                     | 27              | 76IR4100(1)L0(2)           | R76IR4100(1)L0(2)    |
| 250 | 180 | 1.2            | 11.0             | 20.0 | 32.0 | 27.5             | 200          | 100,000                                 | 240             | 18                  | 5.3        | 11.0                     | 31              | 76IR4120(1)40(2)           | R76IR4120(1)40(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 250 | 180 | 1.2            | 24.0             | 15.0 | 32.0 | 27.5             | 200          | 100,000                                 | 240             | 18                  | 5          | 11.8                     | 27              | 76IR4120(1)L0(2)           | R76IR4120(1)L0(2)    |
| 250 | 180 | 1.5            | 13.0             | 22.0 | 32.0 | 27.5             | 200          | 100,000                                 | 300             | 18                  | 4.2        | 12.7                     | 29              | 76IR4150(1)30(2)           | R76IR4150(1)30(2)    |
| 250 | 180 | 1.5            | 24.0             | 15.0 | 32.0 | 27.5             | 200          | 100,000                                 | 300             | 18                  | 4          | 13.2                     | 27              | 76IR4150(1)L0(2)           | R76IR4150(1)L0(2)    |
| 250 | 180 | 1.8            | 13.0             | 25.0 | 32.0 | 27.5             | 200          | 100,000                                 | 360             | 18                  | 5.3        | 11.7                     | 28              | 76IR4180(1)20(2)           | R76IR4180(1)20(2)    |
| 250 | 180 | 1.8            | 24.0             | 15.0 | 32.0 | 27.5             | 200          | 100,000                                 | 360             | 18                  | 5          | 11.8                     | 27              | 76IR4180(1)L0(2)           | R76IR4180(1)L0(2)    |
| 250 | 180 | 2.2            | 14.0             | 28.0 | 32.0 | 27.5             | 200          | 100,000                                 | 440             | 18                  | 4.3        | 13.3                     | 26              | 76IR4220(1)40(2)           | R76IR4220(1)40(2)    |
| 250 | 180 | 2.7            | 18.0             | 33.0 | 32.0 | 27.5             | 200          | 100,000                                 | 540             | 18                  | 7.1        | 11.1                     | 23              | 76IR4270(1)30(2)           | R76IR4270(1)30(2)    |
| 250 | 180 | 2.7            | 16.0             | 30.0 | 32.0 | 27.5             | 200          | 100,000                                 | 540             | 18                  | 7.1        | 10.7                     | 25              | 76IR4270(1)40(2)           | R76IR4270(1)40(2)    |
| 250 | 180 | 3.3            | 18.0             | 33.0 | 32.0 | 27.5             | 200          | 100,000                                 | 660             | 18                  | 5.8        | 12.3                     | 23              | 76IR4330(1)30(2)           | R76IR4330(1)30(2)    |
| 250 | 180 | 3.9            | 18.0             | 33.0 | 32.0 | 27.5             | 200          | 100,000                                 | 780             | 18                  | 4.9        | 13.3                     | 23              | 76IR4390(1)30(2)           | R76IR4390(1)30(2)    |
| 250 | 180 | 4.7            | 22.0             | 37.0 | 32.0 | 27.5             | 200          | 100,000                                 | 940             | 18                  | 4.1        | 15.4                     | 21              | 76IR4470(1)30(2)           | R76IR4470(1)30(2)    |
| 250 | 180 | 5.6            | 22.0             | 37.0 | 32.0 | 27.5             | 200          | 100,000                                 | 1,120           | 18                  | 3.4        | 16.8                     | 21              | 76IR4560(1)40(2)           | R76IR4560(1)40(2)    |
| 250 | 180 | 1.2            | 11.0             | 22.0 | 41.5 | 37.5             | 100          | 50,000                                  | 120             | 20                  | 5.3        | 11.8                     | 27              | 76IW4120(1)30(2)           | R76IW4120(1)30(2)    |
| 250 | 180 | 1.5            | 11.0             | 22.0 | 41.5 | 37.5             | 100          | 50,000                                  | 150             | 20                  | 4.2        | 13.2                     | 27              | 76IW4150(1)30(2)           | R76IW4150(1)30(2)    |
| 250 | 180 | 1.5            | 24.0             | 15.0 | 41.5 | 37.5             | 100          | 50,000                                  | 150             | 20                  | 4.2        | 13.9                     | 24              | 76IW4150(1)L0(2)           | R76IW4150(1)L0(2)    |
| 250 | 180 | 1.8            | 11.0             | 22.0 | 41.5 | 37.5             | 100          | 50,000                                  | 180             | 20                  | 5.3        | 11.8                     | 27              | 76IW4180(1)30(2)           | R76IW4180(1)30(2)    |
| 250 | 180 | 1.8            | 24.0             | 15.0 | 41.5 | 37.5             | 100          | 50,000                                  | 180             | 20                  | 5.3        | 12.4                     | 24              | 76IW4180(1)L0(2)           | R76IW4180(1)L0(2)    |
| 250 | 180 | 2.2            | 13.0             | 24.0 | 41.5 | 37.5             | 100          | 50,000                                  | 220             | 20                  | 4.3        | 13.5                     | 25              | 76IW4220(1)30(2)           | R76IW4220(1)30(2)    |
| 250 | 180 | 2.2            | 24.0             | 15.0 | 41.5 | 37.5             | 100          | 50,000                                  | 220             | 20                  | 4.3        | 13.7                     | 24              | 76IW4220(1)L0(2)           | R76IW4220(1)L0(2)    |
| 250 | 180 | 2.7            | 16.0             | 28.5 | 41.5 | 37.5             | 100          | 50,000                                  | 270             | 20                  | 7.1        | 11.2                     | 23              | 76IW4270(1)20(2)           | R76IW4270(1)20(2)    |
| 250 | 180 | 2.7            | 24.0             | 19.0 | 41.5 | 37.5             | 100          | 50,000                                  | 270             | 20                  | 7.1        | 11.1                     | 23              | 76IW4270(1)L0(2)           | R76IW4270(1)L0(2)    |
| 250 | 180 | 3.3            | 16.0             | 28.5 | 41.5 | 37.5             | 100          | 50,000                                  | 330             | 20                  | 5.8        | 12.4                     | 23              | 76IW4330(1)30(2)           | R76IW4330(1)30(2)    |
| 250 | 180 | 3.3            | 24.0             | 19.0 | 41.5 | 37.5             | 100          | 50,000                                  | 330             | 20                  | 5.8        | 12.3                     | 23              | 76IW4330(1)L0(2)           | R76IW4330(1)L0(2)    |
| 250 | 180 | 3.9            | 16.0             | 28.5 | 41.5 | 37.5             | 100          | 50,000                                  | 390             | 20                  | 4.9        | 13.5                     | 23              | 76IW4390(1)30(2)           | R76IW4390(1)30(2)    |
| 250 | 180 | 4.7            | 19.0             | 32.0 | 41.5 | 37.5             | 100          | 50,000                                  | 470             | 20                  | 4.1        | 15.4                     | 21              | 76IW4470(1)30(2)           | R76IW4470(1)30(2)    |
| 250 | 180 | 5.6            | 20.0             | 40.0 | 41.5 | 37.5             | 100          | 50,000                                  | 560             | 20                  | 3.4        | 17.7                     | 19              | 76IW4560(1)20(2)           | R76IW4560(1)20(2)    |
| 250 | 180 | 6.8            | 20.0             | 40.0 | 41.5 | 37.5             | 100          | 50,000                                  | 680             | 20                  | 7.0        | 12.3                     | 19              | 76IW4680(1)30(2)           | R76IW4680(1)30(2)    |
| 250 | 180 | 8.2            | 24.0             | 44.0 | 41.5 | 37.5             | 100          | 50,000                                  | 820             | 20                  | 5.8        | 14.1                     | 17              | 76IW4820(1)20(2)           | R76IW4820(1)20(2)    |
| 250 | 180 | 10             | 24.0             | 44.0 | 41.5 | 37.5             | 100          | 50,000                                  | 1,000           | 20                  | 4.8        | 15.6                     | 17              | 76IW5100(1)30(2)           | R76IW5100(1)30(2)    |
| 250 | 180 | 12             | 30.0             | 45.0 | 41.5 | 37.5             | 100          | 50,000                                  | 1,200           | 20                  | 9.9        | 11.2                     | 16              | 76IW5120(1)30(2)           | R76IW5120(1)30(2)    |
| 400 | 250 | 0.0027         | 3.0              | 8.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 5               | 8                   | 236        | 0.4                      | 98              | 76MD1270(1)30(2)           | R76MD1270(1)30(2)    |
| 400 | 250 | 0.0033         | 3.0              | 8.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 6               | 8                   | 193        | 0.5                      | 98              | 76MD1330(1)30(2)           | R76MD1330(1)30(2)    |
| 400 | 250 | 0.0039         | 3.0              | 8.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 7               | 8                   | 163        | 0.6                      | 98              | 76MD1390(1)30(2)           | R76MD1390(1)30(2)    |
| 400 | 250 | 0.0047         | 3.0              | 8.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 8               | 8                   | 135        | 0.7                      | 98              | 76MD1470(1)30(2)           | R76MD1470(1)30(2)    |
| 400 | 250 | 0.0056         | 3.0              | 8.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 10              | 8                   | 114        | 0.9                      | 98              | 76MD1560(1)30(2)           | R76MD1560(1)30(2)    |
| 400 | 250 | 0.0068         | 4.0              | 9.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 12              | 8                   | 94         | 1.1                      | 88              | 76MD1680(1)40(2)           | R76MD1680(1)40(2)    |
| 400 | 250 | 0.0082         | 4.0              | 9.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 14              | 8                   | 78         | 1.3                      | 88              | 76MD1820(1)40(2)           | R76MD1820(1)40(2)    |
| 400 | 250 | 0.01           | 4.0              | 9.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 17              | 8                   | 64         | 1.6                      | 88              | 76MD2100(1)40(2)           | R76MD2100(1)40(2)    |
| 400 | 250 | 0.012          | 4.0              | 9.0  | 10.0 | 7.5              | 1,700        | 1,360,000                               | 20              | 8                   | 53         | 1.9                      | 88              | 76MD2120(1)40(2)           | R76MD2120(1)40(2)    |
| 400 | 250 | 0.015          | 5.0              | 10.5 | 10.0 | 7.5              | 1,700        | 1,360,000                               | 26              | 8                   | 42         | 2.4                      | 78              | 76MD2150(1)40(2)           | R76MD2150(1)40(2)    |
| 400 | 250 | 0.018          | 5.0              | 10.5 | 10.0 | 7.5              | 1,700        | 1,360,000                               | 31              | 8                   | 35         | 2.7                      | 78              | 76MD2180(1)40(2)           | R76MD2180(1)40(2)    |
| 400 | 250 | 0.022          | 6.0              | 12.0 | 10.5 | 7.5              | 1,700        | 1,360,000                               | 37              | 8                   | 29         | 3.2                      | 69              | 76MD2220(1)30(2)           | R76MD2220(1)30(2)    |
| 400 | 250 | 0.027          | 6.0              | 12.0 | 10.5 | 7.5              | 1,700        | 1,360,000                               | 46              | 8                   | 24         | 3.5                      | 69              | 76MD2270(1)30(2)           | R76MD2270(1)30(2)    |
| 400 | 250 | 0.01           | 4.0              | 9.0  | 13.0 | 10.0             | 1,500        | 1,200,000                               | 15              | 9                   | 64         | 1.6                      | 79              | 76MF2100(1)00(2)           | R76MF2100(1)00(2)    |
| 400 | 250 | 0.012          | 4.0              | 9.0  | 13.0 | 10.0             | 1,500        | 1,200,000                               | 18              | 9                   | 53         | 1.9                      | 79              | 76MF2120(1)00(2)           | R76MF2120(1)00(2)    |
| 400 | 250 | 0.015          | 4.0              | 9.0  | 13.0 | 10.0             | 1,500        | 1,200,000                               | 23              | 9                   | 42         | 2.4                      | 79              | 76MF2150(1)30(2)           | R76MF2150(1)30(2)    |
| 400 | 250 | 0.018          | 4.0              | 9.0  | 13.0 | 10.0             | 1,500        | 1,200,000                               | 27              | 9                   | 35         | 2.7                      | 79              | 76MF2180(1)30(2)           | R76MF2180(1)30(2)    |
| 400 | 250 | 0.022          | 4.0              | 9.0  | 13.0 | 10.0             | 1,500        | 1,200,000                               | 33              | 9                   | 29         | 3.0                      | 79              | 76MF2220(1)30(2)           | R76MF2220(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 400 | 250 | 0.027          | 5.0              | 11.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 41              | 9                   | 24         | 3.5                      | 69              | 76MF2270(1)30(2)           | R76MF2270(1)30(2)    |
| 400 | 250 | 0.027          | 4.0              | 9.0  | 13.0 | 10.0             | 1,500        | 1,200,000                               | 41              | 9                   | 24         | 3.3                      | 79              | 76MF2270(1)50(2)           | R76MF2270(1)50(2)    |
| 400 | 250 | 0.033          | 5.0              | 11.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 50              | 9                   | 19         | 3.9                      | 69              | 76MF2330(1)30(2)           | R76MF2330(1)30(2)    |
| 400 | 250 | 0.039          | 5.0              | 11.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 59              | 9                   | 16         | 4.2                      | 69              | 76MF2390(1)50(2)           | R76MF2390(1)50(2)    |
| 400 | 250 | 0.039          | 6.0              | 12.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 59              | 9                   | 16         | 4.4                      | 64              | 76MF2390(1)30(2)           | R76MF2390(1)30(2)    |
| 400 | 250 | 0.047          | 5.0              | 11.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 71              | 9                   | 14         | 4.6                      | 69              | 76MF2470(1)50(2)           | R76MF2470(1)50(2)    |
| 400 | 250 | 0.047          | 6.0              | 12.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 71              | 9                   | 14         | 4.8                      | 64              | 76MF2470(1)30(2)           | R76MF2470(1)30(2)    |
| 400 | 250 | 0.056          | 6.0              | 12.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 84              | 9                   | 20         | 4.0                      | 64              | 76MF2560(1)50(2)           | R76MF2560(1)50(2)    |
| 400 | 250 | 0.068          | 6.0              | 12.0 | 13.0 | 10.0             | 1,500        | 1,200,000                               | 102             | 9                   | 16         | 4.4                      | 64              | 76MF2680(1)50(2)           | R76MF2680(1)50(2)    |
| 400 | 250 | 0.033          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 30              | 10                  | 19         | 4.1                      | 60              | 76MI2330(1)00(2)           | R76MI2330(1)00(2)    |
| 400 | 250 | 0.039          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 35              | 10                  | 16         | 4.5                      | 60              | 76MI2390(1)30(2)           | R76MI2390(1)30(2)    |
| 400 | 250 | 0.047          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 42              | 10                  | 14         | 5.0                      | 60              | 76MI2470(1)30(2)           | R76MI2470(1)30(2)    |
| 400 | 250 | 0.056          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 50              | 10                  | 20         | 4.1                      | 60              | 76MI2560(1)30(2)           | R76MI2560(1)30(2)    |
| 400 | 250 | 0.068          | 6.0              | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 61              | 10                  | 16         | 4.7                      | 56              | 76MI2680(1)30(2)           | R76MI2680(1)30(2)    |
| 400 | 250 | 0.068          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 61              | 10                  | 16         | 4.5                      | 60              | 76MI2680(1)50(2)           | R76MI2680(1)50(2)    |
| 400 | 250 | 0.082          | 6.0              | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 74              | 10                  | 14         | 5.1                      | 56              | 76MI2820(1)30(2)           | R76MI2820(1)30(2)    |
| 400 | 250 | 0.1            | 6.0              | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 90              | 10                  | 11         | 5.7                      | 56              | 76MI3100(1)50(2)           | R76MI3100(1)50(2)    |
| 400 | 250 | 0.1            | 7.5              | 13.5 | 18.0 | 15.0             | 900          | 720,000                                 | 90              | 10                  | 11         | 6.0                      | 51              | 76MI3100(1)30(2)           | R76MI3100(1)30(2)    |
| 400 | 250 | 0.1            | 9.0              | 12.5 | 18.0 | 15.0             | 900          | 720,000                                 | 90              | 10                  | 11         | 6.0                      | 50              | 76MI3100(1)70(2)           | R76MI3100(1)70(2)    |
| 400 | 250 | 0.12           | 7.5              | 13.5 | 18.0 | 15.0             | 900          | 720,000                                 | 108             | 10                  | 13         | 5.5                      | 51              | 76MI3120(1)30(2)           | R76MI3120(1)30(2)    |
| 400 | 250 | 0.12           | 9.0              | 12.5 | 18.0 | 15.0             | 900          | 720,000                                 | 108             | 10                  | 13         | 5.5                      | 50              | 76MI3120(1)70(2)           | R76MI3120(1)70(2)    |
| 400 | 250 | 0.15           | 7.5              | 13.5 | 18.0 | 15.0             | 900          | 720,000                                 | 135             | 10                  | 11         | 6.1                      | 51              | 76MI3150(1)50(2)           | R76MI3150(1)50(2)    |
| 400 | 250 | 0.15           | 8.5              | 14.5 | 18.0 | 15.0             | 900          | 720,000                                 | 135             | 10                  | 11         | 6.3                      | 48              | 76MI3150(1)30(2)           | R76MI3150(1)30(2)    |
| 400 | 250 | 0.15           | 13.0             | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 135             | 10                  | 11         | 6.5                      | 45              | 76MI3150(1)70(2)           | R76MI3150(1)70(2)    |
| 400 | 250 | 0.18           | 8.5              | 14.5 | 18.0 | 15.0             | 900          | 720,000                                 | 162             | 10                  | 9          | 6.9                      | 48              | 76MI3180(1)50(2)           | R76MI3180(1)50(2)    |
| 400 | 250 | 0.18           | 10.0             | 16.0 | 18.0 | 15.0             | 900          | 720,000                                 | 162             | 10                  | 9          | 7.2                      | 44              | 76MI3180(1)30(2)           | R76MI3180(1)30(2)    |
| 400 | 250 | 0.18           | 13.0             | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 162             | 10                  | 9          | 7.1                      | 45              | 76MI3180(1)70(2)           | R76MI3180(1)70(2)    |
| 400 | 250 | 0.22           | 10.0             | 16.0 | 18.0 | 15.0             | 900          | 720,000                                 | 198             | 10                  | 7          | 7.9                      | 44              | 76MI3220(1)30(2)           | R76MI3220(1)30(2)    |
| 400 | 250 | 0.27           | 10.0             | 16.0 | 18.0 | 15.0             | 900          | 720,000                                 | 243             | 10                  | 6          | 8.8                      | 44              | 76MI3270(1)50(2)           | R76MI3270(1)50(2)    |
| 400 | 250 | 0.27           | 11.0             | 19.0 | 18.0 | 15.0             | 900          | 720,000                                 | 243             | 10                  | 6          | 9.2                      | 40              | 76MI3270(1)30(2)           | R76MI3270(1)30(2)    |
| 400 | 250 | 0.33           | 11.0             | 19.0 | 18.0 | 15.0             | 900          | 720,000                                 | 297             | 10                  | 5          | 10.2                     | 40              | 76MI3330(1)50(2)           | R76MI3330(1)50(2)    |
| 400 | 250 | 0.39           | 11.0             | 19.0 | 18.0 | 15.0             | 900          | 720,000                                 | 351             | 10                  | 4          | 11.0                     | 40              | 76MI3390(1)50(2)           | R76MI3390(1)50(2)    |
| 400 | 250 | 0.12           | 6.0              | 15.0 | 26.5 | 22.5             | 500          | 400,000                                 | 60              | 16                  | 20         | 4.8                      | 43              | 76MN3120(1)30(2)           | R76MN3120(1)30(2)    |
| 400 | 250 | 0.15           | 6.0              | 15.0 | 26.5 | 22.5             | 500          | 400,000                                 | 75              | 16                  | 16         | 5.4                      | 43              | 76MN3150(1)30(2)           | R76MN3150(1)30(2)    |
| 400 | 250 | 0.18           | 6.0              | 15.0 | 26.5 | 22.5             | 500          | 400,000                                 | 90              | 16                  | 13         | 5.9                      | 43              | 76MN3180(1)30(2)           | R76MN3180(1)30(2)    |
| 400 | 250 | 0.22           | 7.0              | 16.0 | 26.5 | 22.5             | 500          | 400,000                                 | 110             | 16                  | 11         | 6.7                      | 41              | 76MN3220(1)30(2)           | R76MN3220(1)30(2)    |
| 400 | 250 | 0.22           | 6.0              | 15.0 | 26.5 | 22.5             | 500          | 400,000                                 | 110             | 16                  | 11         | 6.5                      | 43              | 76MN3220(1)50(2)           | R76MN3220(1)50(2)    |
| 400 | 250 | 0.27           | 8.5              | 17.0 | 26.5 | 22.5             | 500          | 400,000                                 | 135             | 16                  | 9          | 7.7                      | 38              | 76MN3270(1)30(2)           | R76MN3270(1)30(2)    |
| 400 | 250 | 0.27           | 7.0              | 16.0 | 26.5 | 22.5             | 500          | 400,000                                 | 135             | 16                  | 9          | 7.4                      | 41              | 76MN3270(1)50(2)           | R76MN3270(1)50(2)    |
| 400 | 250 | 0.33           | 8.5              | 17.0 | 26.5 | 22.5             | 500          | 400,000                                 | 165             | 16                  | 7          | 8.5                      | 38              | 76MN3330(1)30(2)           | R76MN3330(1)30(2)    |
| 400 | 250 | 0.39           | 8.5              | 17.0 | 26.5 | 22.5             | 500          | 400,000                                 | 195             | 16                  | 8          | 8.0                      | 38              | 76MN3390(1)50(2)           | R76MN3390(1)50(2)    |
| 400 | 250 | 0.39           | 10.0             | 18.5 | 26.5 | 22.5             | 500          | 400,000                                 | 195             | 16                  | 8          | 8.3                      | 36              | 76MN3390(1)30(2)           | R76MN3390(1)30(2)    |
| 400 | 250 | 0.47           | 10.0             | 18.5 | 26.5 | 22.5             | 500          | 400,000                                 | 235             | 16                  | 7          | 9.1                      | 36              | 76MN3470(1)30(2)           | R76MN3470(1)30(2)    |
| 400 | 250 | 0.56           | 10.0             | 18.5 | 26.5 | 22.5             | 500          | 400,000                                 | 280             | 16                  | 6          | 9.9                      | 36              | 76MN3560(1)50(2)           | R76MN3560(1)50(2)    |
| 400 | 250 | 0.56           | 11.0             | 20.0 | 26.5 | 22.5             | 500          | 400,000                                 | 280             | 16                  | 6          | 10.2                     | 34              | 76MN3560(1)30(2)           | R76MN3560(1)30(2)    |
| 400 | 250 | 0.68           | 11.0             | 20.0 | 26.5 | 22.5             | 500          | 400,000                                 | 340             | 16                  | 5          | 11.2                     | 34              | 76MN3680(1)50(2)           | R76MN3680(1)50(2)    |
| 400 | 250 | 0.68           | 13.0             | 22.0 | 26.5 | 22.5             | 500          | 400,000                                 | 340             | 16                  | 4.7        | 11.7                     | 31              | 76MN3680(1)30(2)           | R76MN3680(1)30(2)    |
| 400 | 250 | 0.82           | 13.0             | 22.0 | 26.5 | 22.5             | 500          | 400,000                                 | 410             | 16                  | 3.9        | 12.8                     | 31              | 76MN3820(1)50(2)           | R76MN3820(1)50(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 400 | 250 | 1              | 14.5             | 29.5 | 26.5 | 22.5             | 500          | 400,000                                 | 500             | 16                  | 6          | 11.5                     | 27              | 76MN4100(1)30(2)           | R76MN4100(1)30(2)    |
| 400 | 250 | 0.39           | 9.0              | 17.0 | 32.0 | 27.5             | 300          | 240,000                                 | 117             | 18                  | 8          | 8.4                      | 35              | 76MR3390(1)30(2)           | R76MR3390(1)30(2)    |
| 400 | 250 | 0.47           | 9.0              | 17.0 | 32.0 | 27.5             | 300          | 240,000                                 | 141             | 18                  | 7          | 9.2                      | 35              | 76MR3470(1)30(2)           | R76MR3470(1)30(2)    |
| 400 | 250 | 0.56           | 11.0             | 20.0 | 32.0 | 27.5             | 300          | 240,000                                 | 168             | 18                  | 6          | 10.6                     | 31              | 76MR3560(1)30(2)           | R76MR3560(1)30(2)    |
| 400 | 250 | 0.68           | 11.0             | 20.0 | 32.0 | 27.5             | 300          | 240,000                                 | 204             | 18                  | 7          | 9.5                      | 31              | 76MR3680(1)30(2)           | R76MR3680(1)30(2)    |
| 400 | 250 | 0.68           | 24.0             | 15.0 | 32.0 | 27.5             | 300          | 240,000                                 | 204             | 18                  | 7          | 10.2                     | 27              | 76MR3680(1)L0(2)           | R76MR3680(1)L0(2)    |
| 400 | 250 | 0.82           | 13.0             | 22.0 | 32.0 | 27.5             | 300          | 240,000                                 | 246             | 18                  | 6          | 10.9                     | 29              | 76MR3820(1)30(2)           | R76MR3820(1)30(2)    |
| 400 | 250 | 0.82           | 24.0             | 15.0 | 32.0 | 27.5             | 300          | 240,000                                 | 246             | 18                  | 6          | 11.3                     | 27              | 76MR3820(1)L0(2)           | R76MR3820(1)L0(2)    |
| 400 | 250 | 1              | 13.0             | 22.0 | 32.0 | 27.5             | 300          | 240,000                                 | 300             | 18                  | 6          | 11.1                     | 29              | 76MR4100(1)40(2)           | R76MR4100(1)40(2)    |
| 400 | 250 | 1              | 24.0             | 15.0 | 32.0 | 27.5             | 300          | 240,000                                 | 300             | 18                  | 6          | 11.5                     | 27              | 76MR4100(1)L0(2)           | R76MR4100(1)L0(2)    |
| 400 | 250 | 1.2            | 14.0             | 28.0 | 32.0 | 27.5             | 300          | 240,000                                 | 360             | 18                  | 5          | 12.0                     | 26              | 76MR4120(1)40(2)           | R76MR4120(1)40(2)    |
| 400 | 250 | 1.2            | 24.0             | 15.0 | 32.0 | 27.5             | 300          | 240,000                                 | 360             | 18                  | 5.3        | 11.8                     | 27              | 76MR4120(1)L0(2)           | R76MR4120(1)L0(2)    |
| 400 | 250 | 1.5            | 16.0             | 30.0 | 32.0 | 27.5             | 300          | 240,000                                 | 450             | 18                  | 4.2        | 13.9                     | 25              | 76MR4150(1)40(2)           | R76MR4150(1)40(2)    |
| 400 | 250 | 1.5            | 18.0             | 33.0 | 32.0 | 27.5             | 300          | 240,000                                 | 450             | 18                  | 4.2        | 14.3                     | 23              | 76MR4150(1)30(2)           | R76MR4150(1)30(2)    |
| 400 | 250 | 1.8            | 16.0             | 30.0 | 32.0 | 27.5             | 300          | 240,000                                 | 540             | 18                  | 5.3        | 12.4                     | 25              | 76MR4180(1)40(2)           | R76MR4180(1)40(2)    |
| 400 | 250 | 1.8            | 18.0             | 33.0 | 32.0 | 27.5             | 300          | 240,000                                 | 540             | 18                  | 5.3        | 12.8                     | 23              | 76MR4180(1)30(2)           | R76MR4180(1)30(2)    |
| 400 | 250 | 2.2            | 18.0             | 33.0 | 32.0 | 27.5             | 300          | 240,000                                 | 660             | 18                  | 4.3        | 14.2                     | 23              | 76MR4220(1)40(2)           | R76MR4220(1)40(2)    |
| 400 | 250 | 2.2            | 22.0             | 37.0 | 32.0 | 27.5             | 300          | 240,000                                 | 660             | 18                  | 4.3        | 14.9                     | 21              | 76MR4220(1)30(2)           | R76MR4220(1)30(2)    |
| 400 | 250 | 2.7            | 22.0             | 37.0 | 32.0 | 27.5             | 300          | 240,000                                 | 810             | 18                  | 7.1        | 11.7                     | 21              | 76MR4270(1)30(2)           | R76MR4270(1)30(2)    |
| 400 | 250 | 1              | 11.0             | 22.0 | 41.5 | 37.5             | 180          | 144,000                                 | 180             | 20                  | 6          | 11.5                     | 27              | 76MW4100(1)30(2)           | R76MW4100(1)30(2)    |
| 400 | 250 | 1              | 24.0             | 15.0 | 41.5 | 37.5             | 180          | 144,000                                 | 180             | 20                  | 6          | 12.1                     | 24              | 76MW4100(1)L0(2)           | R76MW4100(1)L0(2)    |
| 400 | 250 | 1.2            | 13.0             | 24.0 | 41.5 | 37.5             | 180          | 144,000                                 | 216             | 20                  | 5          | 12.2                     | 25              | 76MW4120(1)30(2)           | R76MW4120(1)30(2)    |
| 400 | 250 | 1.2            | 24.0             | 15.0 | 41.5 | 37.5             | 180          | 144,000                                 | 216             | 20                  | 5          | 12.4                     | 24              | 76MW4120(1)L0(2)           | R76MW4120(1)L0(2)    |
| 400 | 250 | 1.5            | 13.0             | 24.0 | 41.5 | 37.5             | 180          | 144,000                                 | 270             | 20                  | 4          | 13.7                     | 25              | 76MW4150(1)30(2)           | R76MW4150(1)30(2)    |
| 400 | 250 | 1.5            | 24.0             | 15.0 | 41.5 | 37.5             | 180          | 144,000                                 | 270             | 20                  | 4          | 13.9                     | 24              | 76MW4150(1)L0(2)           | R76MW4150(1)L0(2)    |
| 400 | 250 | 1.8            | 16.0             | 28.5 | 41.5 | 37.5             | 180          | 144,000                                 | 324             | 20                  | 5          | 12.9                     | 23              | 76MW4180(1)30(2)           | R76MW4180(1)30(2)    |
| 400 | 250 | 1.8            | 24.0             | 19.0 | 41.5 | 37.5             | 180          | 144,000                                 | 324             | 20                  | 5.3        | 12.8                     | 23              | 76MW4180(1)L0(2)           | R76MW4180(1)L0(2)    |
| 400 | 250 | 2.2            | 16.0             | 28.5 | 41.5 | 37.5             | 180          | 144,000                                 | 396             | 20                  | 4.3        | 14.3                     | 23              | 76MW4220(1)30(2)           | R76MW4220(1)30(2)    |
| 400 | 250 | 2.2            | 19.0             | 32.0 | 41.5 | 37.5             | 180          | 144,000                                 | 396             | 20                  | 4.3        | 14.9                     | 21              | 76MW4220(1)30(2)           | R76MW4220(1)30(2)    |
| 400 | 250 | 2.2            | 24.0             | 19.0 | 41.5 | 37.5             | 180          | 144,000                                 | 396             | 20                  | 4.3        | 14.2                     | 23              | 76MW4220(1)L0(2)           | R76MW4220(1)L0(2)    |
| 400 | 250 | 2.7            | 19.0             | 32.0 | 41.5 | 37.5             | 180          | 144,000                                 | 486             | 20                  | 7.1        | 11.7                     | 21              | 76MW4270(1)30(2)           | R76MW4270(1)30(2)    |
| 400 | 250 | 3.3            | 19.0             | 32.0 | 41.5 | 37.5             | 180          | 144,000                                 | 594             | 20                  | 5.8        | 12.9                     | 21              | 76MW4330(1)30(2)           | R76MW4330(1)30(2)    |
| 400 | 250 | 3.9            | 20.0             | 40.0 | 41.5 | 37.5             | 180          | 144,000                                 | 702             | 20                  | 4.9        | 14.8                     | 19              | 76MW4390(1)30(2)           | R76MW4390(1)30(2)    |
| 400 | 250 | 4.7            | 20.0             | 40.0 | 41.5 | 37.5             | 180          | 144,000                                 | 846             | 20                  | 4.1        | 16.2                     | 19              | 76MW4470(1)30(2)           | R76MW4470(1)30(2)    |
| 400 | 250 | 5.6            | 24.0             | 44.0 | 41.5 | 37.5             | 180          | 144,000                                 | 1,008           | 20                  | 3.4        | 18.4                     | 17              | 76MW4560(1)30(2)           | R76MW4560(1)30(2)    |
| 400 | 250 | 6.8            | 30.0             | 45.0 | 41.5 | 37.5             | 180          | 144,000                                 | 1,224           | 20                  | 7.0        | 13.3                     | 16              | 76MW4680(1)30(2)           | R76MW4680(1)30(2)    |
| 400 | 250 | 8.2            | 30.0             | 45.0 | 41.5 | 37.5             | 180          | 144,000                                 | 1,476           | 20                  | 5.8        | 14.6                     | 16              | 76MW4820(1)30(2)           | R76MW4820(1)30(2)    |
| 630 | 250 | 0.00068        | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 2               | 8                   | 936        | 0.1                      | 98              | 76PD0680(1)00(2)           | R76PD0680(1)00(2)    |
| 630 | 250 | 0.00082        | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 2               | 8                   | 776        | 0.1                      | 98              | 76PD0820(1)00(2)           | R76PD0820(1)00(2)    |
| 630 | 250 | 0.001          | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 3               | 8                   | 637        | 0.2                      | 98              | 76PD1100(1)00(2)           | R76PD1100(1)00(2)    |
| 630 | 250 | 0.0012         | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 3               | 8                   | 531        | 0.2                      | 98              | 76PD1120(1)00(2)           | R76PD1120(1)00(2)    |
| 630 | 250 | 0.0015         | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 4               | 8                   | 424        | 0.2                      | 98              | 76PD1150(1)00(2)           | R76PD1150(1)00(2)    |
| 630 | 250 | 0.0018         | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 5               | 8                   | 354        | 0.3                      | 98              | 76PD1180(1)00(2)           | R76PD1180(1)00(2)    |
| 630 | 250 | 0.0022         | 3.0              | 8.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 6               | 8                   | 289        | 0.3                      | 98              | 76PD1220(1)00(2)           | R76PD1220(1)00(2)    |
| 630 | 250 | 0.0027         | 4.0              | 9.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 8               | 8                   | 236        | 0.4                      | 88              | 76PD1270(1)40(2)           | R76PD1270(1)40(2)    |
| 630 | 250 | 0.0033         | 4.0              | 9.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 9               | 8                   | 193        | 0.5                      | 88              | 76PD1330(1)40(2)           | R76PD1330(1)40(2)    |
| 630 | 250 | 0.0039         | 4.0              | 9.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 11              | 8                   | 163        | 0.6                      | 88              | 76PD1390(1)40(2)           | R76PD1390(1)40(2)    |
| 630 | 250 | 0.0047         | 4.0              | 9.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 13              | 8                   | 135        | 0.7                      | 88              | 76PD1470(1)40(2)           | R76PD1470(1)40(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

**Table 1 – Ratings & Part Number Reference cont.**

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 630 | 250 | 0.0056         | 4.0              | 9.0  | 10.0 | 7.5              | 2,800        | 3,528,000                               | 16              | 8                   | 114        | 0.9                      | 88              | 76PD1560(1)40(2)           | R76PD1560(1)40(2)    |
| 630 | 250 | 0.0068         | 5.0              | 10.5 | 10.0 | 7.5              | 2,800        | 3,528,000                               | 19              | 8                   | 94         | 1.1                      | 78              | 76PD1680(1)40(2)           | R76PD1680(1)40(2)    |
| 630 | 250 | 0.0082         | 5.0              | 10.5 | 10.0 | 7.5              | 2,800        | 3,528,000                               | 23              | 8                   | 78         | 1.3                      | 78              | 76PD1820(1)40(2)           | R76PD1820(1)40(2)    |
| 630 | 250 | 0.01           | 6.0              | 12.0 | 10.5 | 7.5              | 2,800        | 3,528,000                               | 28              | 8                   | 64         | 1.6                      | 69              | 76PD2100(1)30(2)           | R76PD2100(1)30(2)    |
| 630 | 250 | 0.012          | 6.0              | 12.0 | 10.5 | 7.5              | 2,800        | 3,528,000                               | 34              | 8                   | 53         | 1.9                      | 69              | 76PD2120(1)30(2)           | R76PD2120(1)30(2)    |
| 630 | 400 | 0.0033         | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 13              | 9                   | 193        | 0.8                      | 79              | 76PF1330(1)00(2)           | R76PF1330(1)00(2)    |
| 630 | 400 | 0.0039         | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 16              | 9                   | 163        | 1.0                      | 79              | 76PF1390(1)00(2)           | R76PF1390(1)00(2)    |
| 630 | 400 | 0.0047         | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 19              | 9                   | 135        | 1.2                      | 79              | 76PF1470(1)00(2)           | R76PF1470(1)00(2)    |
| 630 | 400 | 0.0056         | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 22              | 9                   | 114        | 1.4                      | 79              | 76PF1560(1)00(2)           | R76PF1560(1)00(2)    |
| 630 | 400 | 0.0068         | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 27              | 9                   | 94         | 1.6                      | 79              | 76PF1680(1)00(2)           | R76PF1680(1)00(2)    |
| 630 | 400 | 0.0082         | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 33              | 9                   | 78         | 1.8                      | 79              | 76PF1820(1)00(2)           | R76PF1820(1)00(2)    |
| 630 | 400 | 0.01           | 4.0              | 9.0  | 13.0 | 10.0             | 4,000        | 5,040,000                               | 40              | 9                   | 64         | 2.0                      | 79              | 76PF2100(1)50(2)           | R76PF2100(1)50(2)    |
| 630 | 400 | 0.01           | 5.0              | 11.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 40              | 9                   | 64         | 2.1                      | 69              | 76PF2100(1)30(2)           | R76PF2100(1)30(2)    |
| 630 | 400 | 0.012          | 5.0              | 11.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 48              | 9                   | 53         | 2.3                      | 69              | 76PF2120(1)30(2)           | R76PF2120(1)30(2)    |
| 630 | 400 | 0.015          | 5.0              | 11.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 60              | 9                   | 42         | 2.6                      | 69              | 76PF2150(1)50(2)           | R76PF2150(1)50(2)    |
| 630 | 400 | 0.015          | 6.0              | 12.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 60              | 9                   | 42         | 2.7                      | 64              | 76PF2150(1)30(2)           | R76PF2150(1)30(2)    |
| 630 | 400 | 0.018          | 5.0              | 11.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 72              | 9                   | 35         | 2.9                      | 69              | 76PF2180(1)50(2)           | R76PF2180(1)50(2)    |
| 630 | 400 | 0.018          | 6.0              | 12.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 72              | 9                   | 35         | 3.0                      | 64              | 76PF2180(1)30(2)           | R76PF2180(1)30(2)    |
| 630 | 400 | 0.022          | 6.0              | 12.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 88              | 9                   | 29         | 3.3                      | 64              | 76PF2220(1)30(2)           | R76PF2220(1)30(2)    |
| 630 | 400 | 0.027          | 6.0              | 12.0 | 13.0 | 10.0             | 4,000        | 5,040,000                               | 108             | 9                   | 24         | 3.6                      | 64              | 76PF2270(1)50(2)           | R76PF2270(1)50(2)    |
| 630 | 400 | 0.012          | 5.0              | 11.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 36              | 10                  | 53         | 2.5                      | 60              | 76PI2120(1)00(2)           | R76PI2120(1)00(2)    |
| 630 | 400 | 0.015          | 5.0              | 11.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 45              | 10                  | 42         | 2.8                      | 60              | 76PI2150(1)00(2)           | R76PI2150(1)00(2)    |
| 630 | 400 | 0.018          | 5.0              | 11.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 54              | 10                  | 35         | 3.1                      | 60              | 76PI2180(1)00(2)           | R76PI2180(1)00(2)    |
| 630 | 400 | 0.022          | 5.0              | 11.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 66              | 10                  | 29         | 3.4                      | 60              | 76PI2220(1)30(2)           | R76PI2220(1)30(2)    |
| 630 | 400 | 0.027          | 5.0              | 11.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 81              | 10                  | 24         | 3.8                      | 60              | 76PI2270(1)30(2)           | R76PI2270(1)30(2)    |
| 630 | 400 | 0.033          | 6.0              | 12.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 99              | 10                  | 19         | 4.3                      | 56              | 76PI2330(1)30(2)           | R76PI2330(1)30(2)    |
| 630 | 400 | 0.033          | 5.0              | 11.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 99              | 10                  | 19         | 4.1                      | 60              | 76PI2330(1)50(2)           | R76PI2330(1)50(2)    |
| 630 | 400 | 0.039          | 6.0              | 12.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 117             | 10                  | 16         | 4.7                      | 56              | 76PI2390(1)30(2)           | R76PI2390(1)30(2)    |
| 630 | 400 | 0.047          | 6.0              | 12.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 141             | 10                  | 14         | 5.1                      | 56              | 76PI2470(1)50(2)           | R76PI2470(1)50(2)    |
| 630 | 400 | 0.047          | 7.5              | 13.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 141             | 10                  | 14         | 5.4                      | 51              | 76PI2470(1)30(2)           | R76PI2470(1)30(2)    |
| 630 | 400 | 0.047          | 9.0              | 12.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 141             | 10                  | 14         | 5.5                      | 50              | 76PI2470(1)70(2)           | R76PI2470(1)70(2)    |
| 630 | 400 | 0.056          | 7.5              | 13.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 168             | 10                  | 20         | 4.5                      | 51              | 76PI2560(1)30(2)           | R76PI2560(1)30(2)    |
| 630 | 400 | 0.056          | 9.0              | 12.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 168             | 10                  | 20         | 4.5                      | 50              | 76PI2560(1)70(2)           | R76PI2560(1)70(2)    |
| 630 | 400 | 0.068          | 7.5              | 13.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 204             | 10                  | 16         | 4.9                      | 51              | 76PI2680(1)50(2)           | R76PI2680(1)50(2)    |
| 630 | 400 | 0.068          | 8.5              | 14.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 204             | 10                  | 16         | 5.1                      | 48              | 76PI2680(1)30(2)           | R76PI2680(1)30(2)    |
| 630 | 400 | 0.068          | 9.0              | 12.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 204             | 10                  | 16         | 5.0                      | 50              | 76PI2680(1)70(2)           | R76PI2680(1)70(2)    |
| 630 | 400 | 0.082          | 7.5              | 13.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 246             | 10                  | 14         | 5.4                      | 51              | 76PI2820(1)50(2)           | R76PI2820(1)50(2)    |
| 630 | 400 | 0.082          | 8.5              | 14.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 246             | 10                  | 14         | 5.6                      | 48              | 76PI2820(1)30(2)           | R76PI2820(1)30(2)    |
| 630 | 400 | 0.082          | 13.0             | 12.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 246             | 10                  | 14         | 5.7                      | 45              | 76PI2820(1)70(2)           | R76PI2820(1)70(2)    |
| 630 | 400 | 0.1            | 8.5              | 14.5 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 300             | 10                  | 11         | 6.1                      | 48              | 76PI3100(1)50(2)           | R76PI3100(1)50(2)    |
| 630 | 400 | 0.1            | 10.0             | 16.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 300             | 10                  | 11         | 6.4                      | 44              | 76PI3100(1)30(2)           | R76PI3100(1)30(2)    |
| 630 | 400 | 0.12           | 10.0             | 16.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 360             | 10                  | 13         | 5.8                      | 44              | 76PI3120(1)50(2)           | R76PI3120(1)50(2)    |
| 630 | 400 | 0.12           | 11.0             | 19.0 | 18.0 | 15.0             | 3,000        | 3,780,000                               | 360             | 10                  | 13         | 6.1                      | 40              | 76PI3120(1)30(2)           | R76PI3120(1)30(2)    |
| 630 | 400 | 0.047          | 6.0              | 15.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 71              | 16                  | 14         | 5.8                      | 43              | 76PN2470(1)00(2)           | R76PN2470(1)00(2)    |
| 630 | 400 | 0.056          | 6.0              | 15.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 84              | 16                  | 20         | 4.8                      | 43              | 76PN2560(1)00(2)           | R76PN2560(1)00(2)    |
| 630 | 400 | 0.068          | 6.0              | 15.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 102             | 16                  | 16         | 5.3                      | 43              | 76PN2680(1)00(2)           | R76PN2680(1)00(2)    |
| 630 | 400 | 0.082          | 6.0              | 15.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 123             | 16                  | 14         | 5.8                      | 43              | 76PN2820(1)30(2)           | R76PN2820(1)30(2)    |
| 630 | 400 | 0.1            | 6.0              | 15.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 150             | 16                  | 11         | 6.4                      | 43              | 76PN3100(1)30(2)           | R76PN3100(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C



Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 630 | 400 | 0.12           | 6.0              | 15.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 180             | 16                  | 20         | 4.8                      | 43              | 76PN3120(1)50(2)           | R76PN3120(1)50(2)    |
| 630 | 400 | 0.12           | 7.0              | 16.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 180             | 16                  | 20         | 4.9                      | 41              | 76PN3120(1)30(2)           | R76PN3120(1)30(2)    |
| 630 | 400 | 0.15           | 7.0              | 16.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 225             | 16                  | 16         | 5.5                      | 41              | 76PN3150(1)50(2)           | R76PN3150(1)50(2)    |
| 630 | 400 | 0.15           | 8.5              | 17.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 225             | 16                  | 16         | 5.7                      | 38              | 76PN3150(1)30(2)           | R76PN3150(1)30(2)    |
| 630 | 400 | 0.18           | 8.5              | 17.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 270             | 16                  | 13         | 6.3                      | 38              | 76PN3180(1)30(2)           | R76PN3180(1)30(2)    |
| 630 | 400 | 0.22           | 8.5              | 17.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 330             | 16                  | 11         | 6.9                      | 38              | 76PN3220(1)50(2)           | R76PN3220(1)50(2)    |
| 630 | 400 | 0.22           | 10.0             | 18.5 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 330             | 16                  | 11         | 7.2                      | 36              | 76PN3220(1)30(2)           | R76PN3220(1)30(2)    |
| 630 | 400 | 0.27           | 10.0             | 18.5 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 405             | 16                  | 9          | 7.9                      | 36              | 76PN3270(1)50(2)           | R76PN3270(1)50(2)    |
| 630 | 400 | 0.27           | 11.0             | 20.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 405             | 16                  | 9          | 8.2                      | 34              | 76PN3270(1)30(2)           | R76PN3270(1)30(2)    |
| 630 | 400 | 0.33           | 11.0             | 20.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 495             | 16                  | 7          | 9.0                      | 34              | 76PN3330(1)30(2)           | R76PN3330(1)30(2)    |
| 630 | 400 | 0.39           | 11.0             | 20.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 585             | 16                  | 8          | 8.5                      | 34              | 76PN3390(1)50(2)           | R76PN3390(1)50(2)    |
| 630 | 400 | 0.39           | 13.0             | 22.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 585             | 16                  | 8          | 8.8                      | 31              | 76PN3390(1)30(2)           | R76PN3390(1)30(2)    |
| 630 | 400 | 0.47           | 13.0             | 22.0 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 705             | 16                  | 7          | 9.7                      | 31              | 76PN3470(1)50(2)           | R76PN3470(1)50(2)    |
| 630 | 400 | 0.56           | 14.5             | 29.5 | 26.5 | 22.5             | 1,500        | 1,890,000                               | 840             | 16                  | 6          | 11.4                     | 27              | 76PN3560(1)30(2)           | R76PN3560(1)30(2)    |
| 630 | 400 | 0.15           | 9.0              | 17.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 135             | 18                  | 16         | 6.0                      | 35              | 76PR3150(1)30(2)           | R76PR3150(1)30(2)    |
| 630 | 400 | 0.18           | 9.0              | 17.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 162             | 18                  | 13         | 6.6                      | 35              | 76PR3180(1)30(2)           | R76PR3180(1)30(2)    |
| 630 | 400 | 0.22           | 9.0              | 17.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 198             | 18                  | 11         | 7.3                      | 35              | 76PR3220(1)30(2)           | R76PR3220(1)30(2)    |
| 630 | 400 | 0.27           | 9.0              | 17.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 243             | 18                  | 9          | 8.0                      | 35              | 76PR3270(1)30(2)           | R76PR3270(1)30(2)    |
| 630 | 400 | 0.33           | 11.0             | 20.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 297             | 18                  | 7          | 9.4                      | 31              | 76PR3330(1)40(2)           | R76PR3330(1)40(2)    |
| 630 | 400 | 0.39           | 11.0             | 20.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 351             | 18                  | 8          | 8.8                      | 31              | 76PR3390(1)30(2)           | R76PR3390(1)30(2)    |
| 630 | 400 | 0.39           | 24.0             | 15.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 351             | 18                  | 8          | 9.5                      | 27              | 76PR3390(1)L0(2)           | R76PR3390(1)L0(2)    |
| 630 | 400 | 0.47           | 13.0             | 22.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 423             | 18                  | 7          | 10.1                     | 29              | 76PR3470(1)30(2)           | R76PR3470(1)30(2)    |
| 630 | 400 | 0.47           | 24.0             | 15.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 423             | 18                  | 7          | 10.4                     | 27              | 76PR3470(1)L0(2)           | R76PR3470(1)L0(2)    |
| 630 | 400 | 0.56           | 13.0             | 22.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 504             | 18                  | 6          | 11.0                     | 29              | 76PR3560(1)30(2)           | R76PR3560(1)30(2)    |
| 630 | 400 | 0.56           | 24.0             | 15.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 504             | 18                  | 6          | 11.4                     | 27              | 76PR3560(1)L0(2)           | R76PR3560(1)L0(2)    |
| 630 | 400 | 0.68           | 13.0             | 25.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 612             | 18                  | 7          | 10.1                     | 28              | 76PR3680(1)40(2)           | R76PR3680(1)40(2)    |
| 630 | 400 | 0.68           | 24.0             | 15.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 612             | 18                  | 7          | 10.2                     | 27              | 76PR3680(1)L0(2)           | R76PR3680(1)L0(2)    |
| 630 | 400 | 0.82           | 14.0             | 28.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 738             | 18                  | 6          | 11.5                     | 26              | 76PR3820(1)30(2)           | R76PR3820(1)30(2)    |
| 630 | 400 | 1              | 16.0             | 30.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 900             | 18                  | 6          | 12.1                     | 25              | 76PR4100(1)40(2)           | R76PR4100(1)40(2)    |
| 630 | 400 | 1              | 18.0             | 33.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 900             | 18                  | 5.6        | 12.5                     | 23              | 76PR4100(1)30(2)           | R76PR4100(1)30(2)    |
| 630 | 400 | 1.2            | 18.0             | 33.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 1,080           | 18                  | 5.3        | 12.8                     | 23              | 76PR4120(1)30(2)           | R76PR4120(1)30(2)    |
| 630 | 400 | 1.5            | 22.0             | 37.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 1,350           | 18                  | 4.2        | 15.1                     | 21              | 76PR4150(1)30(2)           | R76PR4150(1)30(2)    |
| 630 | 400 | 1.8            | 22.0             | 37.0 | 32.0 | 27.5             | 900          | 1,134,000                               | 1,620           | 18                  | 5.3        | 13.5                     | 21              | 76PR4180(1)30(2)           | R76PR4180(1)30(2)    |
| 630 | 400 | 0.33           | 11.0             | 22.0 | 41.5 | 37.5             | 450          | 567,000                                 | 149             | 20                  | 7          | 10.1                     | 27              | 76PW3330(1)30(2)           | R76PW3330(1)30(2)    |
| 630 | 400 | 0.39           | 11.0             | 22.0 | 41.5 | 37.5             | 450          | 567,000                                 | 176             | 20                  | 8          | 9.5                      | 27              | 76PW3390(1)30(2)           | R76PW3390(1)30(2)    |
| 630 | 400 | 0.47           | 11.0             | 22.0 | 41.5 | 37.5             | 450          | 567,000                                 | 212             | 20                  | 7          | 10.4                     | 27              | 76PW3470(1)30(2)           | R76PW3470(1)30(2)    |
| 630 | 400 | 0.56           | 11.0             | 22.0 | 41.5 | 37.5             | 450          | 567,000                                 | 252             | 20                  | 6          | 11.4                     | 27              | 76PW3560(1)30(2)           | R76PW3560(1)30(2)    |
| 630 | 400 | 0.68           | 11.0             | 22.0 | 41.5 | 37.5             | 450          | 567,000                                 | 306             | 20                  | 7          | 10.3                     | 27              | 76PW3680(1)30(2)           | R76PW3680(1)30(2)    |
| 630 | 400 | 0.68           | 24.0             | 15.0 | 41.5 | 37.5             | 450          | 567,000                                 | 306             | 20                  | 7          | 10.8                     | 24              | 76PW3680(1)L0(2)           | R76PW3680(1)L0(2)    |
| 630 | 400 | 0.82           | 13.0             | 24.0 | 41.5 | 37.5             | 450          | 567,000                                 | 369             | 20                  | 6          | 11.7                     | 25              | 76PW3820(1)30(2)           | R76PW3820(1)30(2)    |
| 630 | 400 | 0.82           | 24.0             | 15.0 | 41.5 | 37.5             | 450          | 567,000                                 | 369             | 20                  | 6          | 11.9                     | 24              | 76PW3820(1)L0(2)           | R76PW3820(1)L0(2)    |
| 630 | 400 | 1              | 16.0             | 28.5 | 41.5 | 37.5             | 450          | 567,000                                 | 450             | 20                  | 6          | 12.6                     | 23              | 76PW4100(1)30(2)           | R76PW4100(1)30(2)    |
| 630 | 400 | 1              | 24.0             | 15.0 | 41.5 | 37.5             | 450          | 567,000                                 | 450             | 20                  | 6          | 12.1                     | 24              | 76PW4100(1)L0(2)           | R76PW4100(1)L0(2)    |
| 630 | 400 | 1.2            | 16.0             | 28.5 | 41.5 | 37.5             | 450          | 567,000                                 | 540             | 20                  | 5          | 12.9                     | 23              | 76PW4120(1)30(2)           | R76PW4120(1)30(2)    |
| 630 | 400 | 1.2            | 24.0             | 19.0 | 41.5 | 37.5             | 450          | 567,000                                 | 540             | 20                  | 5          | 12.8                     | 23              | 76PW4120(1)L0(2)           | R76PW4120(1)L0(2)    |
| 630 | 400 | 1.5            | 16.0             | 28.5 | 41.5 | 37.5             | 450          | 567,000                                 | 675             | 20                  | 4          | 14.5                     | 23              | 76PW4150(1)30(2)           | R76PW4150(1)30(2)    |
| 630 | 400 | 1.5            | 24.0             | 19.0 | 41.5 | 37.5             | 450          | 567,000                                 | 675             | 20                  | 4          | 14.4                     | 23              | 76PW4150(1)L0(2)           | R76PW4150(1)L0(2)    |
| 630 | 400 | 1.8            | 19.0             | 32.0 | 41.5 | 37.5             | 450          | 567,000                                 | 810             | 20                  | 5.3        | 13.5                     | 21              | 76PW4180(1)30(2)           | R76PW4180(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 630   | 400 | 2.2            | 20.0             | 40.0 | 41.5 | 37.5             | 450          | 567,000                                 | 990             | 20                  | 4.3        | 15.7                     | 19              | 76PW4220(1)30(2)           | R76PW4220(1)30(2)    |
| 630   | 400 | 2.7            | 20.0             | 40.0 | 41.5 | 37.5             | 450          | 567,000                                 | 1,215           | 20                  | 7.1        | 12.3                     | 19              | 76PW4270(1)30(2)           | R76PW4270(1)30(2)    |
| 630   | 400 | 3.3            | 24.0             | 44.0 | 41.5 | 37.5             | 450          | 567,000                                 | 1,485           | 20                  | 5.8        | 14.2                     | 17              | 76PW4330(1)30(2)           | R76PW4330(1)30(2)    |
| 630   | 400 | 3.9            | 30.0             | 45.0 | 41.5 | 37.5             | 450          | 567,000                                 | 1,755           | 20                  | 4.9        | 16.0                     | 16              | 76PW4390(1)30(2)           | R76PW4390(1)30(2)    |
| 1,000 | 400 | 0.00022        | 3.0              | 8.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 1               | 8                   | 2,894      | 0.1                      | 98              | 76QD0220(1)00(2)           | R76QD0220(1)00(2)    |
| 1,000 | 400 | 0.00027        | 3.0              | 8.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 2               | 8                   | 2,358      | 0.1                      | 98              | 76QD0270(1)00(2)           | R76QD0270(1)00(2)    |
| 1,000 | 400 | 0.00033        | 3.0              | 8.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 2               | 8                   | 1,929      | 0.1                      | 98              | 76QD0330(1)00(2)           | R76QD0330(1)00(2)    |
| 1,000 | 400 | 0.00039        | 3.0              | 8.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 2               | 8                   | 1,632      | 0.1                      | 98              | 76QD0390(1)00(2)           | R76QD0390(1)00(2)    |
| 1,000 | 400 | 0.00047        | 3.0              | 8.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 3               | 8                   | 1,355      | 0.1                      | 98              | 76QD0470(1)00(2)           | R76QD0470(1)00(2)    |
| 1,000 | 400 | 0.00056        | 3.0              | 8.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 3               | 8                   | 1,137      | 0.1                      | 98              | 76QD0560(1)00(2)           | R76QD0560(1)00(2)    |
| 1,000 | 400 | 0.00068        | 4.0              | 9.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 4               | 8                   | 936        | 0.2                      | 88              | 76QD0680(1)40(2)           | R76QD0680(1)40(2)    |
| 1,000 | 400 | 0.00082        | 4.0              | 9.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 5               | 8                   | 776        | 0.2                      | 88              | 76QD0820(1)40(2)           | R76QD0820(1)40(2)    |
| 1,000 | 400 | 0.001          | 4.0              | 9.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 6               | 8                   | 637        | 0.3                      | 88              | 76QD1100(1)40(2)           | R76QD1100(1)40(2)    |
| 1,000 | 400 | 0.0012         | 4.0              | 9.0  | 10.0 | 7.5              | 6,000        | 12,000,000                              | 7               | 8                   | 531        | 0.3                      | 88              | 76QD1120(1)40(2)           | R76QD1120(1)40(2)    |
| 1,000 | 400 | 0.0015         | 5.0              | 10.5 | 10.0 | 7.5              | 6,000        | 12,000,000                              | 9               | 8                   | 424        | 0.4                      | 78              | 76QD1150(1)40(2)           | R76QD1150(1)40(2)    |
| 1,000 | 400 | 0.0018         | 5.0              | 10.5 | 10.0 | 7.5              | 6,000        | 12,000,000                              | 11              | 8                   | 354        | 0.5                      | 78              | 76QD1180(1)40(2)           | R76QD1180(1)40(2)    |
| 1,000 | 400 | 0.0022         | 5.0              | 10.5 | 10.0 | 7.5              | 6,000        | 12,000,000                              | 13              | 8                   | 289        | 0.6                      | 78              | 76QD1220(1)40(2)           | R76QD1220(1)40(2)    |
| 1,000 | 400 | 0.0027         | 6.0              | 12.0 | 10.5 | 7.5              | 6,000        | 12,000,000                              | 16              | 8                   | 236        | 0.7                      | 69              | 76QD1270(1)00(2)           | R76QD1270(1)00(2)    |
| 1,000 | 400 | 0.0033         | 6.0              | 12.0 | 10.5 | 7.5              | 6,000        | 12,000,000                              | 20              | 8                   | 193        | 0.8                      | 69              | 76QD1330(1)00(2)           | R76QD1330(1)00(2)    |
| 1,000 | 600 | 0.00047        | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 3               | 9                   | 1,355      | 0.2                      | 79              | 76QF0470(1)00(2)           | R76QF0470(1)00(2)    |
| 1,000 | 600 | 0.00056        | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 4               | 9                   | 1,137      | 0.2                      | 79              | 76QF0560(1)00(2)           | R76QF0560(1)00(2)    |
| 1,000 | 600 | 0.00068        | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 4               | 9                   | 936        | 0.3                      | 79              | 76QF0680(1)00(2)           | R76QF0680(1)00(2)    |
| 1,000 | 600 | 0.00082        | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 5               | 9                   | 776        | 0.3                      | 79              | 76QF0820(1)00(2)           | R76QF0820(1)00(2)    |
| 1,000 | 600 | 0.001          | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 7               | 9                   | 637        | 0.4                      | 79              | 76QF1100(1)00(2)           | R76QF1100(1)00(2)    |
| 1,000 | 600 | 0.0012         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 8               | 9                   | 531        | 0.5                      | 79              | 76QF1120(1)00(2)           | R76QF1120(1)00(2)    |
| 1,000 | 600 | 0.0015         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 10              | 9                   | 424        | 0.6                      | 79              | 76QF1150(1)00(2)           | R76QF1150(1)00(2)    |
| 1,000 | 600 | 0.0018         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 12              | 9                   | 354        | 0.7                      | 79              | 76QF1180(1)00(2)           | R76QF1180(1)00(2)    |
| 1,000 | 600 | 0.0022         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 14              | 9                   | 289        | 0.8                      | 79              | 76QF1220(1)00(2)           | R76QF1220(1)00(2)    |
| 1,000 | 600 | 0.0027         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 18              | 9                   | 236        | 1.0                      | 79              | 76QF1270(1)00(2)           | R76QF1270(1)00(2)    |
| 1,000 | 600 | 0.0033         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 21              | 9                   | 193        | 1.1                      | 79              | 76QF1330(1)30(2)           | R76QF1330(1)30(2)    |
| 1,000 | 600 | 0.0039         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 25              | 9                   | 163        | 1.2                      | 79              | 76QF1390(1)50(2)           | R76QF1390(1)50(2)    |
| 1,000 | 600 | 0.0039         | 5.0              | 11.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 25              | 9                   | 163        | 1.3                      | 69              | 76QF1390(1)30(2)           | R76QF1390(1)30(2)    |
| 1,000 | 600 | 0.0047         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 31              | 9                   | 135        | 1.4                      | 79              | 76QF1470(1)50(2)           | R76QF1470(1)50(2)    |
| 1,000 | 600 | 0.0047         | 5.0              | 11.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 31              | 9                   | 135        | 1.5                      | 69              | 76QF1470(1)30(2)           | R76QF1470(1)30(2)    |
| 1,000 | 600 | 0.0056         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 36              | 9                   | 114        | 1.5                      | 79              | 76QF1560(1)50(2)           | R76QF1560(1)50(2)    |
| 1,000 | 600 | 0.0056         | 6.0              | 12.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 36              | 9                   | 114        | 1.7                      | 64              | 76QF1560(1)30(2)           | R76QF1560(1)30(2)    |
| 1,000 | 600 | 0.0068         | 4.0              | 9.0  | 13.0 | 10.0             | 6,500        | 13,000,000                              | 44              | 9                   | 94         | 1.6                      | 79              | 76QF1680(1)50(2)           | R76QF1680(1)50(2)    |
| 1,000 | 600 | 0.0068         | 6.0              | 12.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 44              | 9                   | 94         | 1.8                      | 64              | 76QF1680(1)30(2)           | R76QF1680(1)30(2)    |
| 1,000 | 600 | 0.0082         | 5.0              | 11.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 53              | 9                   | 78         | 1.9                      | 69              | 76QF1820(1)50(2)           | R76QF1820(1)50(2)    |
| 1,000 | 600 | 0.01           | 5.0              | 11.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 65              | 9                   | 64         | 2.1                      | 69              | 76QF2100(1)50(2)           | R76QF2100(1)50(2)    |
| 1,000 | 600 | 0.012          | 5.0              | 11.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 78              | 9                   | 53         | 2.3                      | 69              | 76QF2120(1)50(2)           | R76QF2120(1)50(2)    |
| 1,000 | 600 | 0.015          | 6.0              | 12.0 | 13.0 | 10.0             | 6,500        | 13,000,000                              | 98              | 9                   | 42         | 2.7                      | 64              | 76QF2150(1)50(2)           | R76QF2150(1)50(2)    |
| 1,000 | 600 | 0.0082         | 4.0              | 10.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 29              | 10                  | 78         | 2.0                      | 65              | 76QI1820(1)40(2)           | R76QI1820(1)40(2)    |
| 1,000 | 600 | 0.0082         | 5.0              | 11.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 29              | 10                  | 78         | 2.1                      | 60              | 76QI1820(1)00(2)           | R76QI1820(1)00(2)    |
| 1,000 | 600 | 0.01           | 4.0              | 10.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 35              | 10                  | 64         | 2.2                      | 65              | 76QI2100(1)40(2)           | R76QI2100(1)40(2)    |
| 1,000 | 600 | 0.01           | 5.0              | 11.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 35              | 10                  | 64         | 2.3                      | 60              | 76QI2100(1)30(2)           | R76QI2100(1)30(2)    |
| 1,000 | 600 | 0.012          | 5.0              | 11.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 42              | 10                  | 53         | 2.5                      | 60              | 76QI2120(1)30(2)           | R76QI2120(1)30(2)    |
| 1,000 | 600 | 0.015          | 5.0              | 11.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 53              | 10                  | 42         | 2.8                      | 60              | 76QI2150(1)40(2)           | R76QI2150(1)40(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C



Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 1,000 | 600 | 0.018          | 5.0              | 11.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 63              | 10                  | 35         | 3.1                      | 60              | 76QI2180(1)40(2)           | R76QI2180(1)40(2)    |
| 1,000 | 600 | 0.022          | 6.0              | 12.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 77              | 10                  | 29         | 3.5                      | 56              | 76QI2220(1)40(2)           | R76QI2220(1)40(2)    |
| 1,000 | 600 | 0.022          | 9.0              | 12.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 77              | 10                  | 29         | 3.7                      | 50              | 76QI2220(1)70(2)           | R76QI2220(1)70(2)    |
| 1,000 | 600 | 0.027          | 6.0              | 12.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 95              | 10                  | 24         | 3.9                      | 56              | 76QI2270(1)50(2)           | R76QI2270(1)50(2)    |
| 1,000 | 600 | 0.027          | 7.5              | 13.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 95              | 10                  | 24         | 4.1                      | 51              | 76QI2270(1)40(2)           | R76QI2270(1)40(2)    |
| 1,000 | 600 | 0.027          | 9.0              | 12.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 95              | 10                  | 24         | 4.1                      | 50              | 76QI2270(1)70(2)           | R76QI2270(1)70(2)    |
| 1,000 | 600 | 0.033          | 6.0              | 12.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 116             | 10                  | 19         | 4.3                      | 56              | 76QI2330(1)50(2)           | R76QI2330(1)50(2)    |
| 1,000 | 600 | 0.033          | 7.5              | 13.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 116             | 10                  | 19         | 4.5                      | 51              | 76QI2330(1)40(2)           | R76QI2330(1)40(2)    |
| 1,000 | 600 | 0.033          | 13.0             | 12.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 116             | 10                  | 19         | 4.8                      | 45              | 76QI2330(1)70(2)           | R76QI2330(1)70(2)    |
| 1,000 | 600 | 0.039          | 7.5              | 13.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 137             | 10                  | 16         | 4.9                      | 51              | 76QI2390(1)50(2)           | R76QI2390(1)50(2)    |
| 1,000 | 600 | 0.039          | 8.5              | 14.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 137             | 10                  | 16         | 5.1                      | 48              | 76QI2390(1)40(2)           | R76QI2390(1)40(2)    |
| 1,000 | 600 | 0.047          | 7.5              | 13.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 165             | 10                  | 14         | 5.4                      | 51              | 76QI2470(1)50(2)           | R76QI2470(1)50(2)    |
| 1,000 | 600 | 0.047          | 8.5              | 14.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 165             | 10                  | 14         | 5.6                      | 48              | 76QI2470(1)40(2)           | R76QI2470(1)40(2)    |
| 1,000 | 600 | 0.056          | 8.5              | 14.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 196             | 10                  | 20         | 4.6                      | 48              | 76QI2560(1)50(2)           | R76QI2560(1)50(2)    |
| 1,000 | 600 | 0.068          | 8.5              | 14.5 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 238             | 10                  | 16         | 5.1                      | 48              | 76QI2680(1)50(2)           | R76QI2680(1)50(2)    |
| 1,000 | 600 | 0.082          | 10.0             | 16.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 287             | 10                  | 14         | 5.8                      | 44              | 76QI2820(1)50(2)           | R76QI2820(1)50(2)    |
| 1,000 | 600 | 0.1            | 11.0             | 19.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 350             | 10                  | 11         | 6.7                      | 40              | 76QI3100(1)50(2)           | R76QI3100(1)50(2)    |
| 1,000 | 600 | 0.12           | 11.0             | 19.0 | 18.0 | 15.0             | 3,500        | 7,000,000                               | 420             | 10                  | 13         | 6.1                      | 40              | 76QI3120(1)50(2)           | R76QI3120(1)50(2)    |
| 1,000 | 600 | 0.027          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 57              | 16                  | 24         | 4.4                      | 43              | 76QN2270(1)00(2)           | R76QN2270(1)00(2)    |
| 1,000 | 600 | 0.033          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 69              | 16                  | 19         | 4.9                      | 43              | 76QN2330(1)30(2)           | R76QN2330(1)30(2)    |
| 1,000 | 600 | 0.039          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 82              | 16                  | 16         | 5.3                      | 43              | 76QN2390(1)30(2)           | R76QN2390(1)30(2)    |
| 1,000 | 600 | 0.047          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 99              | 16                  | 14         | 5.8                      | 43              | 76QN2470(1)50(2)           | R76QN2470(1)50(2)    |
| 1,000 | 600 | 0.047          | 7.0              | 16.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 99              | 16                  | 14         | 6.0                      | 41              | 76QN2470(1)30(2)           | R76QN2470(1)30(2)    |
| 1,000 | 600 | 0.056          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 118             | 16                  | 20         | 4.8                      | 43              | 76QN2560(1)50(2)           | R76QN2560(1)50(2)    |
| 1,000 | 600 | 0.056          | 7.0              | 16.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 118             | 16                  | 20         | 4.9                      | 41              | 76QN2560(1)30(2)           | R76QN2560(1)30(2)    |
| 1,000 | 600 | 0.068          | 7.0              | 16.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 143             | 16                  | 16         | 5.5                      | 41              | 76QN2680(1)50(2)           | R76QN2680(1)50(2)    |
| 1,000 | 600 | 0.068          | 8.5              | 17.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 143             | 16                  | 16         | 5.6                      | 38              | 76QN2680(1)30(2)           | R76QN2680(1)30(2)    |
| 1,000 | 600 | 0.082          | 7.0              | 16.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 172             | 16                  | 14         | 6.0                      | 41              | 76QN2820(1)50(2)           | R76QN2820(1)50(2)    |
| 1,000 | 600 | 0.082          | 10.0             | 18.5 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 172             | 16                  | 14         | 6.4                      | 36              | 76QN2820(1)30(2)           | R76QN2820(1)30(2)    |
| 1,000 | 600 | 0.1            | 8.5              | 17.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 210             | 16                  | 11         | 6.8                      | 38              | 76QN3100(1)50(2)           | R76QN3100(1)50(2)    |
| 1,000 | 600 | 0.1            | 10.0             | 18.5 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 210             | 16                  | 11         | 7.1                      | 36              | 76QN3100(1)30(2)           | R76QN3100(1)30(2)    |
| 1,000 | 600 | 0.12           | 8.5              | 17.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 252             | 16                  | 20         | 5.1                      | 38              | 76QN3120(1)50(2)           | R76QN3120(1)50(2)    |
| 1,000 | 600 | 0.12           | 11.0             | 20.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 252             | 16                  | 20         | 5.4                      | 34              | 76QN3120(1)30(2)           | R76QN3120(1)30(2)    |
| 1,000 | 600 | 0.15           | 10.0             | 18.5 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 315             | 16                  | 16         | 5.9                      | 36              | 76QN3150(1)50(2)           | R76QN3150(1)50(2)    |
| 1,000 | 600 | 0.15           | 13.0             | 22.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 315             | 16                  | 16         | 6.3                      | 31              | 76QN3150(1)30(2)           | R76QN3150(1)30(2)    |
| 1,000 | 600 | 0.18           | 11.0             | 20.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 378             | 16                  | 13         | 6.7                      | 34              | 76QN3180(1)50(2)           | R76QN3180(1)50(2)    |
| 1,000 | 600 | 0.22           | 11.0             | 20.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 462             | 16                  | 11         | 7.4                      | 34              | 76QN3220(1)50(2)           | R76QN3220(1)50(2)    |
| 1,000 | 600 | 0.27           | 13.0             | 22.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 567             | 16                  | 9          | 8.5                      | 31              | 76QN3270(1)50(2)           | R76QN3270(1)50(2)    |
| 1,000 | 600 | 0.33           | 13.0             | 22.0 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 693             | 16                  | 7          | 9.4                      | 31              | 76QN3330(1)50(2)           | R76QN3330(1)50(2)    |
| 1,000 | 600 | 0.39           | 14.5             | 29.5 | 26.5 | 22.5             | 2,100        | 4,200,000                               | 819             | 16                  | 8          | 9.5                      | 27              | 76QN3390(1)50(2)           | R76QN3390(1)50(2)    |
| 1,000 | 600 | 0.1            | 9.0              | 17.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 100             | 18                  | 11         | 7.2                      | 35              | 76QR3100(1)40(2)           | R76QR3100(1)40(2)    |
| 1,000 | 600 | 0.12           | 9.0              | 17.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 120             | 18                  | 20         | 5.4                      | 35              | 76QR3120(1)40(2)           | R76QR3120(1)40(2)    |
| 1,000 | 600 | 0.15           | 11.0             | 20.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 150             | 18                  | 16         | 6.3                      | 31              | 76QR3150(1)30(2)           | R76QR3150(1)30(2)    |
| 1,000 | 600 | 0.18           | 13.0             | 22.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 180             | 18                  | 13         | 7.2                      | 29              | 76QR3180(1)30(2)           | R76QR3180(1)30(2)    |
| 1,000 | 600 | 0.18           | 24.0             | 15.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 180             | 18                  | 13         | 7.5                      | 27              | 76QR3180(1)L0(2)           | R76QR3180(1)L0(2)    |
| 1,000 | 600 | 0.22           | 13.0             | 22.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 220             | 18                  | 11         | 8.0                      | 29              | 76QR3220(1)30(2)           | R76QR3220(1)30(2)    |
| 1,000 | 600 | 0.22           | 24.0             | 15.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 220             | 18                  | 11         | 8.2                      | 27              | 76QR3220(1)L0(2)           | R76QR3220(1)L0(2)    |
| 1,000 | 600 | 0.27           | 13.0             | 25.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 270             | 18                  | 9          | 9.0                      | 28              | 76QR3270(1)40(2)           | R76QR3270(1)40(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 1,000 | 600 | 0.27           | 24.0             | 15.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 270             | 18                  | 9          | 9.1                      | 27              | 76QR3270(1)L0(2)           | R76QR3270(1)L0(2)    |
| 1,000 | 600 | 0.33           | 14.0             | 28.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 330             | 18                  | 7          | 10.3                     | 26              | 76QR3330(1)30(2)           | R76QR3330(1)30(2)    |
| 1,000 | 600 | 0.39           | 18.0             | 33.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 390             | 18                  | 8          | 10.3                     | 23              | 76QR3390(1)30(2)           | R76QR3390(1)30(2)    |
| 1,000 | 600 | 0.47           | 18.0             | 33.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 470             | 18                  | 7          | 11.3                     | 23              | 76QR3470(1)30(2)           | R76QR3470(1)30(2)    |
| 1,000 | 600 | 0.56           | 22.0             | 37.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 560             | 18                  | 6          | 13.0                     | 21              | 76QR3560(1)30(2)           | R76QR3560(1)30(2)    |
| 1,000 | 600 | 0.68           | 22.0             | 37.0 | 32.0 | 27.5             | 1,000        | 2,000,000                               | 680             | 18                  | 7          | 11.7                     | 21              | 76QR3680(1)30(2)           | R76QR3680(1)30(2)    |
| 1,000 | 600 | 0.18           | 11.0             | 22.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 90              | 20                  | 13         | 7.5                      | 27              | 76QW3180(1)30(2)           | R76QW3180(1)30(2)    |
| 1,000 | 600 | 0.22           | 11.0             | 22.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 110             | 20                  | 11         | 8.2                      | 27              | 76QW3220(1)30(2)           | R76QW3220(1)30(2)    |
| 1,000 | 600 | 0.27           | 13.0             | 24.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 135             | 20                  | 9          | 9.5                      | 25              | 76QW3270(1)30(2)           | R76QW3270(1)30(2)    |
| 1,000 | 600 | 0.27           | 24.0             | 15.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 135             | 20                  | 9          | 9.6                      | 24              | 76QW3270(1)L0(2)           | R76QW3270(1)L0(2)    |
| 1,000 | 600 | 0.33           | 13.0             | 24.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 165             | 20                  | 7          | 10.5                     | 25              | 76QW3330(1)30(2)           | R76QW3330(1)30(2)    |
| 1,000 | 600 | 0.33           | 24.0             | 15.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 165             | 20                  | 7          | 10.6                     | 24              | 76QW3330(1)L0(2)           | R76QW3330(1)L0(2)    |
| 1,000 | 600 | 0.39           | 16.0             | 28.5 | 41.5 | 37.5             | 500          | 1,000,000                               | 195             | 20                  | 8          | 10.4                     | 23              | 76QW3390(1)30(2)           | R76QW3390(1)30(2)    |
| 1,000 | 600 | 0.39           | 24.0             | 15.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 195             | 20                  | 8          | 10.0                     | 24              | 76QW3390(1)L0(2)           | R76QW3390(1)L0(2)    |
| 1,000 | 600 | 0.47           | 16.0             | 28.5 | 41.5 | 37.5             | 500          | 1,000,000                               | 235             | 20                  | 7          | 11.4                     | 23              | 76QW3470(1)30(2)           | R76QW3470(1)30(2)    |
| 1,000 | 600 | 0.47           | 24.0             | 19.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 235             | 20                  | 7          | 11.4                     | 23              | 76QW3470(1)L0(2)           | R76QW3470(1)L0(2)    |
| 1,000 | 600 | 0.56           | 16.0             | 28.5 | 41.5 | 37.5             | 500          | 1,000,000                               | 280             | 20                  | 6          | 12.5                     | 23              | 76QW3560(1)30(2)           | R76QW3560(1)30(2)    |
| 1,000 | 600 | 0.56           | 24.0             | 19.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 280             | 20                  | 6          | 12.4                     | 23              | 76QW3560(1)L0(2)           | R76QW3560(1)L0(2)    |
| 1,000 | 600 | 0.68           | 19.0             | 32.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 340             | 20                  | 7          | 11.7                     | 21              | 76QW3680(1)30(2)           | R76QW3680(1)30(2)    |
| 1,000 | 600 | 0.82           | 20.0             | 40.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 410             | 20                  | 6          | 13.5                     | 19              | 76QW3820(1)30(2)           | R76QW3820(1)30(2)    |
| 1,000 | 600 | 1              | 20.0             | 40.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 500             | 20                  | 5.6        | 13.8                     | 19              | 76QW4100(1)30(2)           | R76QW4100(1)30(2)    |
| 1,000 | 600 | 1.2            | 24.0             | 44.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 600             | 20                  | 5.3        | 14.8                     | 17              | 76QW4120(1)30(2)           | R76QW4120(1)30(2)    |
| 1,000 | 600 | 1.5            | 24.0             | 44.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 750             | 20                  | 4.2        | 16.5                     | 17              | 76QW4150(1)30(2)           | R76QW4150(1)30(2)    |
| 1,000 | 600 | 1.8            | 30.0             | 45.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 900             | 20                  | 5.3        | 15.3                     | 16              | 76QW4180(1)30(2)           | R76QW4180(1)30(2)    |
| 1,000 | 600 | 2.2            | 30.0             | 45.0 | 41.5 | 37.5             | 500          | 1,000,000                               | 1,100           | 20                  | 4.3        | 17.0                     | 16              | 76QW4220(1)30(2)           | R76QW4220(1)30(2)    |
| 1,600 | 650 | 0.0022         | 4.0              | 9.0  | 13.0 | 10.0             | 8000         | 25,600,000                              | 18              | 9                   | 289.4      | 0.9                      | 79              | 76TF1220(1)50(2)           | R76TF1220(1)50(2)    |
| 1,600 | 650 | 0.0027         | 4.0              | 9.0  | 13.0 | 10.0             | 8000         | 25,600,000                              | 22              | 9                   | 235.8      | 1.0                      | 79              | 76TF1270(1)50(2)           | R76TF1270(1)50(2)    |
| 1,600 | 650 | 0.0033         | 5.0              | 11.0 | 13.0 | 10.0             | 8000         | 25,600,000                              | 26              | 9                   | 192.9      | 1.2                      | 69              | 76TF1330(1)50(2)           | R76TF1330(1)50(2)    |
| 1,600 | 650 | 0.0039         | 5.0              | 11.0 | 13.0 | 10.0             | 8000         | 25,600,000                              | 31              | 9                   | 163.2      | 1.3                      | 69              | 76TF1390(1)50(2)           | R76TF1390(1)50(2)    |
| 1,600 | 650 | 0.0047         | 5.0              | 11.0 | 13.0 | 10.0             | 8000         | 25,600,000                              | 38              | 9                   | 135.5      | 1.5                      | 69              | 76TF1470(1)50(2)           | R76TF1470(1)50(2)    |
| 1,600 | 650 | 0.0056         | 6.0              | 12.0 | 13.0 | 10.0             | 8000         | 25,600,000                              | 45              | 9                   | 113.7      | 1.7                      | 64              | 76TF1560(1)50(2)           | R76TF1560(1)50(2)    |
| 1,600 | 650 | 0.0068         | 6.0              | 12.0 | 13.0 | 10.0             | 8000         | 25,600,000                              | 54              | 9                   | 93.6       | 1.8                      | 64              | 76TF1680(1)50(2)           | R76TF1680(1)50(2)    |
| 1,600 | 650 | 0.0033         | 4.0              | 10.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 20              | 10                  | 193        | 1.3                      | 65              | 76TI1330(1)40(2)           | R76TI1330(1)40(2)    |
| 1,600 | 650 | 0.0033         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 20              | 10                  | 193        | 1.3                      | 60              | 76TI1330(1)30(2)           | R76TI1330(1)30(2)    |
| 1,600 | 650 | 0.0039         | 4.0              | 10.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 23              | 10                  | 163        | 1.4                      | 65              | 76TI1390(1)40(2)           | R76TI1390(1)40(2)    |
| 1,600 | 650 | 0.0039         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 23              | 10                  | 163        | 1.4                      | 60              | 76TI1390(1)30(2)           | R76TI1390(1)30(2)    |
| 1,600 | 650 | 0.0047         | 4.0              | 10.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 28              | 10                  | 135        | 1.5                      | 65              | 76TI1470(1)40(2)           | R76TI1470(1)40(2)    |
| 1,600 | 650 | 0.0047         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 28              | 10                  | 135        | 1.6                      | 60              | 76TI1470(1)30(2)           | R76TI1470(1)30(2)    |
| 1,600 | 650 | 0.0056         | 4.0              | 10.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 34              | 10                  | 114        | 1.6                      | 65              | 76TI1560(1)40(2)           | R76TI1560(1)40(2)    |
| 1,600 | 650 | 0.0056         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 34              | 10                  | 114        | 1.7                      | 60              | 76TI1560(1)30(2)           | R76TI1560(1)30(2)    |
| 1,600 | 650 | 0.0068         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 41              | 10                  | 94         | 1.9                      | 60              | 76TI1680(1)30(2)           | R76TI1680(1)30(2)    |
| 1,600 | 650 | 0.0082         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 49              | 10                  | 78         | 2.1                      | 60              | 76TI1820(1)40(2)           | R76TI1820(1)40(2)    |
| 1,600 | 650 | 0.01           | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 60              | 10                  | 64         | 2.3                      | 60              | 76TI2100(1)40(2)           | R76TI2100(1)40(2)    |
| 1,600 | 650 | 0.012          | 6.0              | 12.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 72              | 10                  | 53         | 2.6                      | 56              | 76TI2120(1)40(2)           | R76TI2120(1)40(2)    |
| 1,600 | 650 | 0.015          | 6.0              | 12.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 90              | 10                  | 42         | 2.9                      | 56              | 76TI2150(1)40(2)           | R76TI2150(1)40(2)    |
| 1,600 | 650 | 0.018          | 7.5              | 13.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 108             | 10                  | 35         | 3.3                      | 51              | 76TI2180(1)40(2)           | R76TI2180(1)40(2)    |
| 1,600 | 650 | 0.018          | 9.0              | 12.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 108             | 10                  | 35         | 3.4                      | 50              | 76TI2180(1)70(2)           | R76TI2180(1)70(2)    |
| 1,600 | 650 | 0.022          | 7.5              | 13.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 132             | 10                  | 29         | 3.7                      | 51              | 76TI2220(1)40(2)           | R76TI2220(1)40(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 1,600 | 650 | 0.022          | 13.0             | 12.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 132             | 10                  | 29         | 3.9                      | 45              | 76TI2220(1)70(2)           | R76TI2220(1)70(2)    |
| 1,600 | 650 | 0.027          | 8.5              | 14.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 162             | 10                  | 24         | 4.2                      | 48              | 76TI2270(1)40(2)           | R76TI2270(1)40(2)    |
| 1,600 | 650 | 0.033          | 8.5              | 14.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 198             | 10                  | 19         | 4.7                      | 48              | 76TI2330(1)40(2)           | R76TI2330(1)40(2)    |
| 1,600 | 650 | 0.039          | 10.0             | 16.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 234             | 10                  | 16.3       | 5.3                      | 44              | 76TI2390(1)50(2)           | R76TI2390(1)50(2)    |
| 1,600 | 650 | 0.047          | 11.0             | 19.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 282             | 10                  | 13.5       | 6.1                      | 40              | 76TI2470(1)50(2)           | R76TI2470(1)50(2)    |
| 1,600 | 650 | 0.056          | 11.0             | 19.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 336             | 10                  | 19.9       | 5.0                      | 40              | 76TI2560(1)50(2)           | R76TI2560(1)50(2)    |
| 1,600 | 650 | 0.015          | 6.0              | 15.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 45              | 16                  | 42         | 3.3                      | 43              | 76TN2150(1)30(2)           | R76TN2150(1)30(2)    |
| 1,600 | 650 | 0.018          | 6.0              | 15.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 54              | 16                  | 35         | 3.6                      | 43              | 76TN2180(1)30(2)           | R76TN2180(1)30(2)    |
| 1,600 | 650 | 0.022          | 6.0              | 15.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 66              | 16                  | 29         | 4.0                      | 43              | 76TN2220(1)30(2)           | R76TN2220(1)30(2)    |
| 1,600 | 650 | 0.027          | 6.0              | 15.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 81              | 16                  | 24         | 4.4                      | 43              | 76TN2270(1)30(2)           | R76TN2270(1)30(2)    |
| 1,600 | 650 | 0.033          | 6.0              | 15.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 99              | 16                  | 19         | 4.9                      | 43              | 76TN2330(1)40(2)           | R76TN2330(1)40(2)    |
| 1,600 | 650 | 0.039          | 7.0              | 16.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 117             | 16                  | 16         | 5.5                      | 41              | 76TN2390(1)40(2)           | R76TN2390(1)40(2)    |
| 1,600 | 650 | 0.047          | 7.0              | 16.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 141             | 16                  | 14         | 6.0                      | 41              | 76TN2470(1)40(2)           | R76TN2470(1)40(2)    |
| 1,600 | 650 | 0.056          | 8.5              | 17.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 168             | 16                  | 20         | 5.1                      | 38              | 76TN2560(1)40(2)           | R76TN2560(1)40(2)    |
| 1,600 | 650 | 0.068          | 10.0             | 18.5 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 204             | 16                  | 16         | 5.8                      | 36              | 76TN2680(1)40(2)           | R76TN2680(1)40(2)    |
| 1,600 | 650 | 0.068          | 8.5              | 17.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 204             | 16                  | 16.4       | 5.6                      | 38              | 76TN2680(1)50(2)           | R76TN2680(1)50(2)    |
| 1,600 | 650 | 0.082          | 10.0             | 18.5 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 246             | 16                  | 14         | 6.4                      | 36              | 76TN2820(1)40(2)           | R76TN2820(1)40(2)    |
| 1,600 | 650 | 0.1            | 11.0             | 20.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 300             | 16                  | 11         | 7.3                      | 34              | 76TN3100(1)40(2)           | R76TN3100(1)40(2)    |
| 1,600 | 650 | 0.12           | 13.0             | 22.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 360             | 16                  | 20         | 5.7                      | 31              | 76TN3120(1)40(2)           | R76TN3120(1)40(2)    |
| 1,600 | 650 | 0.15           | 13.0             | 22.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 450             | 16                  | 16         | 6.3                      | 31              | 76TN3150(1)50(2)           | R76TN3150(1)50(2)    |
| 1,600 | 650 | 0.18           | 14.5             | 29.5 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 540             | 16                  | 13.3       | 7.4                      | 27              | 76TN3180(1)50(2)           | R76TN3180(1)50(2)    |
| 1,600 | 650 | 0.039          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 78              | 18                  | 20         | 5.3                      | 35              | 76TR2390(1)30(2)           | R76TR2390(1)30(2)    |
| 1,600 | 650 | 0.047          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 94              | 18                  | 17         | 5.8                      | 35              | 76TR2470(1)30(2)           | R76TR2470(1)30(2)    |
| 1,600 | 650 | 0.056          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 112             | 18                  | 20         | 5.4                      | 35              | 76TR2560(1)30(2)           | R76TR2560(1)30(2)    |
| 1,600 | 650 | 0.068          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 136             | 18                  | 16         | 5.9                      | 35              | 76TR2680(1)30(2)           | R76TR2680(1)30(2)    |
| 1,600 | 650 | 0.082          | 11.0             | 20.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 164             | 18                  | 14         | 6.8                      | 31              | 76TR2820(1)30(2)           | R76TR2820(1)30(2)    |
| 1,600 | 650 | 0.1            | 11.0             | 20.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 200             | 18                  | 11         | 7.6                      | 31              | 76TR3100(1)30(2)           | R76TR3100(1)30(2)    |
| 1,600 | 650 | 0.12           | 11.0             | 20.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 240             | 18                  | 20         | 5.7                      | 31              | 76TR3120(1)40(2)           | R76TR3120(1)40(2)    |
| 1,600 | 650 | 0.12           | 13.0             | 22.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 240             | 18                  | 20         | 5.9                      | 29              | 76TR3120(1)30(2)           | R76TR3120(1)30(2)    |
| 1,600 | 650 | 0.12           | 24.0             | 15.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 240             | 18                  | 20         | 6.1                      | 27              | 76TR3120(1)L0(2)           | R76TR3120(1)L0(2)    |
| 1,600 | 650 | 0.15           | 13.0             | 22.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 300             | 18                  | 16         | 6.6                      | 29              | 76TR3150(1)50(2)           | R76TR3150(1)50(2)    |
| 1,600 | 650 | 0.15           | 13.0             | 25.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 300             | 18                  | 16         | 6.7                      | 28              | 76TR3150(1)40(2)           | R76TR3150(1)40(2)    |
| 1,600 | 650 | 0.15           | 24.0             | 15.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 300             | 18                  | 16         | 6.8                      | 27              | 76TR3150(1)L0(2)           | R76TR3150(1)L0(2)    |
| 1,600 | 650 | 0.18           | 13.0             | 25.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 360             | 18                  | 13         | 7.4                      | 28              | 76TR3180(1)50(2)           | R76TR3180(1)50(2)    |
| 1,600 | 650 | 0.18           | 14.0             | 28.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 360             | 18                  | 13         | 7.6                      | 26              | 76TR3180(1)40(2)           | R76TR3180(1)40(2)    |
| 1,600 | 650 | 0.18           | 24.0             | 15.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 360             | 18                  | 13         | 7.5                      | 27              | 76TR3180(1)L0(2)           | R76TR3180(1)L0(2)    |
| 1,600 | 650 | 0.22           | 14.0             | 28.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 440             | 18                  | 11         | 8.4                      | 26              | 76TR3220(1)40(2)           | R76TR3220(1)40(2)    |
| 1,600 | 650 | 0.22           | 18.0             | 33.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 440             | 18                  | 11         | 9.0                      | 23              | 76TR3220(1)30(2)           | R76TR3220(1)30(2)    |
| 1,600 | 650 | 0.27           | 18.0             | 33.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 540             | 18                  | 9          | 9.9                      | 23              | 76TR3270(1)30(2)           | R76TR3270(1)30(2)    |
| 1,600 | 650 | 0.33           | 18.0             | 33.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 660             | 18                  | 7          | 11.0                     | 23              | 76TR3330(1)30(2)           | R76TR3330(1)30(2)    |
| 1,600 | 650 | 0.39           | 22.0             | 37.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 780             | 18                  | 8          | 10.9                     | 21              | 76TR3390(1)30(2)           | R76TR3390(1)30(2)    |
| 1,600 | 650 | 0.47           | 22.0             | 37.0 | 32.0 | 27.5             | 2,000        | 6,400,000                               | 940             | 18                  | 7          | 11.9                     | 21              | 76TR3470(1)30(2)           | R76TR3470(1)30(2)    |
| 1,600 | 650 | 0.082          | 11.0             | 22.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 98              | 20                  | 14         | 7.4                      | 27              | 76TW2820(1)30(2)           | R76TW2820(1)30(2)    |
| 1,600 | 650 | 0.1            | 11.0             | 22.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 120             | 20                  | 11         | 8.1                      | 27              | 76TW3100(1)30(2)           | R76TW3100(1)30(2)    |
| 1,600 | 650 | 0.12           | 11.0             | 22.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 144             | 20                  | 20         | 6.1                      | 27              | 76TW3120(1)30(2)           | R76TW3120(1)30(2)    |
| 1,600 | 650 | 0.15           | 11.0             | 22.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 180             | 20                  | 16         | 6.8                      | 27              | 76TW3150(1)30(2)           | R76TW3150(1)30(2)    |
| 1,600 | 650 | 0.18           | 13.0             | 24.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 216             | 20                  | 13         | 7.7                      | 25              | 76TW3180(1)30(2)           | R76TW3180(1)30(2)    |
| 1,600 | 650 | 0.18           | 24.0             | 15.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 216             | 20                  | 13         | 7.9                      | 24              | 76TW3180(1)L0(2)           | R76TW3180(1)L0(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 1,600 | 650 | 0.22           | 13.0             | 24.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 264             | 20                  | 11         | 8.5                      | 25              | 76TW3220(1)30(2)           | R76TW3220(1)30(2)    |
| 1,600 | 650 | 0.22           | 24.0             | 15.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 264             | 20                  | 11         | 8.7                      | 24              | 76TW3220(1)L0(2)           | R76TW3220(1)L0(2)    |
| 1,600 | 650 | 0.27           | 13.0             | 24.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 324             | 20                  | 9          | 9.5                      | 25              | 76TW3270(1)30(2)           | R76TW3270(1)30(2)    |
| 1,600 | 650 | 0.27           | 24.0             | 19.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 324             | 20                  | 9          | 9.9                      | 23              | 76TW3270(1)L0(2)           | R76TW3270(1)L0(2)    |
| 1,600 | 650 | 0.33           | 16.0             | 28.5 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 396             | 20                  | 7          | 11.1                     | 23              | 76TW3330(1)30(2)           | R76TW3330(1)30(2)    |
| 1,600 | 650 | 0.33           | 24.0             | 19.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 396             | 20                  | 7          | 11.0                     | 23              | 76TW3330(1)L0(2)           | R76TW3330(1)L0(2)    |
| 1,600 | 650 | 0.39           | 16.0             | 28.5 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 468             | 20                  | 8          | 10.4                     | 23              | 76TW3390(1)30(2)           | R76TW3390(1)30(2)    |
| 1,600 | 650 | 0.47           | 19.0             | 32.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 564             | 20                  | 7          | 12.0                     | 21              | 76TW3470(1)30(2)           | R76TW3470(1)30(2)    |
| 1,600 | 650 | 0.56           | 20.0             | 40.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 672             | 20                  | 6          | 13.7                     | 19              | 76TW3560(1)30(2)           | R76TW3560(1)30(2)    |
| 1,600 | 650 | 0.68           | 20.0             | 40.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 816             | 20                  | 7          | 12.3                     | 19              | 76TW3680(1)30(2)           | R76TW3680(1)30(2)    |
| 1,600 | 650 | 0.82           | 24.0             | 44.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 984             | 20                  | 6          | 14.1                     | 17              | 76TW3820(1)30(2)           | R76TW3820(1)30(2)    |
| 1,600 | 650 | 1              | 24.0             | 44.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 1,200           | 20                  | 5.6        | 14.4                     | 17              | 76TW4100(1)30(2)           | R76TW4100(1)30(2)    |
| 1,600 | 650 | 1.2            | 30.0             | 45.0 | 41.5 | 37.5             | 1,200        | 3,840,000                               | 1,440           | 20                  | 5.3        | 15.3                     | 16              | 76TW4120(1)30(2)           | R76TW4120(1)30(2)    |
| 2,000 | 700 | 0.0001         | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 1               | 10                  | 6,366      | 0.0                      | 65              | 76UI0100(1)40(2)           | R76UI0100(1)40(2)    |
| 2,000 | 700 | 0.00012        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 1               | 10                  | 5,305      | 0.1                      | 65              | 76UI0120(1)40(2)           | R76UI0120(1)40(2)    |
| 2,000 | 700 | 0.00015        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 2               | 10                  | 4,244      | 0.1                      | 65              | 76UI0150(1)40(2)           | R76UI0150(1)40(2)    |
| 2,000 | 700 | 0.00018        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 2               | 10                  | 3,537      | 0.1                      | 65              | 76UI0180(1)40(2)           | R76UI0180(1)40(2)    |
| 2,000 | 700 | 0.00022        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 2               | 10                  | 2,894      | 0.1                      | 65              | 76UI0220(1)40(2)           | R76UI0220(1)40(2)    |
| 2,000 | 700 | 0.00022        | 5.0              | 11.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 2               | 10                  | 2,894      | 0.1                      | 60              | 76UI0220(1)00(2)           | R76UI0220(1)00(2)    |
| 2,000 | 700 | 0.00027        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 3               | 10                  | 2,358      | 0.1                      | 65              | 76UI0270(1)40(2)           | R76UI0270(1)40(2)    |
| 2,000 | 700 | 0.00027        | 5.0              | 11.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 3               | 10                  | 2,358      | 0.1                      | 60              | 76UI0270(1)00(2)           | R76UI0270(1)00(2)    |
| 2,000 | 700 | 0.00033        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 4               | 10                  | 1,929      | 0.1                      | 65              | 76UI0330(1)40(2)           | R76UI0330(1)40(2)    |
| 2,000 | 700 | 0.00033        | 5.0              | 11.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 4               | 10                  | 1,929      | 0.1                      | 60              | 76UI0330(1)00(2)           | R76UI0330(1)00(2)    |
| 2,000 | 700 | 0.00039        | 4.0              | 10.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 4               | 10                  | 1,632      | 0.2                      | 65              | 76UI0390(1)40(2)           | R76UI0390(1)40(2)    |
| 2,000 | 700 | 0.00039        | 5.0              | 11.0 | 18.0 | 15.0             | 11,000       | 44,000,000                              | 4               | 10                  | 1,632      | 0.2                      | 60              | 76UI0390(1)00(2)           | R76UI0390(1)00(2)    |
| 2,000 | 700 | 0.00047        | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 4               | 10                  | 1,355      | 0.2                      | 65              | 76UI0470(1)40(2)           | R76UI0470(1)40(2)    |
| 2,000 | 700 | 0.00047        | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 4               | 10                  | 1,355      | 0.2                      | 60              | 76UI0470(1)00(2)           | R76UI0470(1)00(2)    |
| 2,000 | 700 | 0.00056        | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 5               | 10                  | 1,137      | 0.2                      | 65              | 76UI0560(1)40(2)           | R76UI0560(1)40(2)    |
| 2,000 | 700 | 0.00056        | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 5               | 10                  | 1,137      | 0.2                      | 60              | 76UI0560(1)00(2)           | R76UI0560(1)00(2)    |
| 2,000 | 700 | 0.00068        | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 6               | 10                  | 936        | 0.3                      | 65              | 76UI0680(1)40(2)           | R76UI0680(1)40(2)    |
| 2,000 | 700 | 0.00068        | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 6               | 10                  | 936        | 0.3                      | 60              | 76UI0680(1)00(2)           | R76UI0680(1)00(2)    |
| 2,000 | 700 | 0.00082        | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 8               | 10                  | 776        | 0.4                      | 65              | 76UI0820(1)40(2)           | R76UI0820(1)40(2)    |
| 2,000 | 700 | 0.00082        | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 8               | 10                  | 776        | 0.4                      | 60              | 76UI0820(1)00(2)           | R76UI0820(1)00(2)    |
| 2,000 | 700 | 0.001          | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 10              | 10                  | 637        | 0.4                      | 65              | 76UI1100(1)40(2)           | R76UI1100(1)40(2)    |
| 2,000 | 700 | 0.001          | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 10              | 10                  | 637        | 0.4                      | 60              | 76UI1100(1)30(2)           | R76UI1100(1)30(2)    |
| 2,000 | 700 | 0.0012         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 11              | 10                  | 531        | 0.5                      | 65              | 76UI1120(1)40(2)           | R76UI1120(1)40(2)    |
| 2,000 | 700 | 0.0012         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 11              | 10                  | 531        | 0.5                      | 60              | 76UI1120(1)30(2)           | R76UI1120(1)30(2)    |
| 2,000 | 700 | 0.0015         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 14              | 10                  | 424        | 0.7                      | 65              | 76UI1150(1)40(2)           | R76UI1150(1)40(2)    |
| 2,000 | 700 | 0.0015         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 14              | 10                  | 424        | 0.7                      | 60              | 76UI1150(1)30(2)           | R76UI1150(1)30(2)    |
| 2,000 | 700 | 0.0018         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 17              | 10                  | 354        | 0.8                      | 65              | 76UI1180(1)40(2)           | R76UI1180(1)40(2)    |
| 2,000 | 700 | 0.0018         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 17              | 10                  | 354        | 0.8                      | 60              | 76UI1180(1)30(2)           | R76UI1180(1)30(2)    |
| 2,000 | 700 | 0.0022         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 21              | 10                  | 289        | 1.0                      | 65              | 76UI1220(1)40(2)           | R76UI1220(1)40(2)    |
| 2,000 | 700 | 0.0022         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 21              | 10                  | 289        | 1.0                      | 60              | 76UI1220(1)30(2)           | R76UI1220(1)30(2)    |
| 2,000 | 700 | 0.0027         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 26              | 10                  | 236        | 1.1                      | 65              | 76UI1270(1)40(2)           | R76UI1270(1)40(2)    |
| 2,000 | 700 | 0.0027         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 26              | 10                  | 236        | 1.2                      | 60              | 76UI1270(1)30(2)           | R76UI1270(1)30(2)    |
| 2,000 | 700 | 0.0033         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 31              | 10                  | 193        | 1.3                      | 60              | 76UI1330(1)40(2)           | R76UI1330(1)40(2)    |
| 2,000 | 700 | 0.0039         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 37              | 10                  | 163        | 1.4                      | 60              | 76UI1390(1)40(2)           | R76UI1390(1)40(2)    |
| 2,000 | 700 | 0.0047         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 45              | 10                  | 135        | 1.6                      | 60              | 76UI1470(1)40(2)           | R76UI1470(1)40(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 2,000 | 700 | 0.0056         | 6.0              | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 53              | 10                  | 114        | 1.8                      | 56              | 76UI1560(1)40(2)           | R76UI1560(1)40(2)    |
| 2,000 | 700 | 0.0068         | 6.0              | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 65              | 10                  | 94         | 2.0                      | 56              | 76UI1680(1)40(2)           | R76UI1680(1)40(2)    |
| 2,000 | 700 | 0.0082         | 6.0              | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 78              | 10                  | 78         | 2.1                      | 56              | 76UI1820(1)40(2)           | R76UI1820(1)40(2)    |
| 2,000 | 700 | 0.01           | 7.5              | 13.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 95              | 10                  | 64         | 2.5                      | 51              | 76UI2100(1)40(2)           | R76UI2100(1)40(2)    |
| 2,000 | 700 | 0.01           | 13.0             | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 95              | 10                  | 64         | 2.6                      | 45              | 76UI2100(1)70(2)           | R76UI2100(1)70(2)    |
| 2,000 | 700 | 0.012          | 7.5              | 13.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 114             | 10                  | 53.1       | 2.7                      | 51              | 76UI2120(1)50(2)           | R76UI2120(1)50(2)    |
| 2,000 | 700 | 0.012          | 8.5              | 14.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 114             | 10                  | 53         | 2.8                      | 48              | 76UI2120(1)40(2)           | R76UI2120(1)40(2)    |
| 2,000 | 700 | 0.015          | 8.5              | 14.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 143             | 10                  | 42         | 3.1                      | 48              | 76UI2150(1)40(2)           | R76UI2150(1)40(2)    |
| 2,000 | 700 | 0.018          | 10.0             | 16.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 171             | 10                  | 35.4       | 3.6                      | 44              | 76UI2180(1)50(2)           | R76UI2180(1)50(2)    |
| 2,000 | 700 | 0.022          | 10.0             | 16.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 209             | 10                  | 28.9       | 4.0                      | 44              | 76UI2220(1)50(2)           | R76UI2220(1)50(2)    |
| 2,000 | 700 | 0.027          | 11.0             | 19.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 257             | 10                  | 23.6       | 4.6                      | 40              | 76UI2270(1)50(2)           | R76UI2270(1)50(2)    |
| 2,000 | 700 | 0.001          | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 5               | 16                  | 637        | 0.4                      | 43              | 76UN1100(1)00(2)           | R76UN1100(1)00(2)    |
| 2,000 | 700 | 0.0012         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 5               | 16                  | 531        | 0.5                      | 43              | 76UN1120(1)00(2)           | R76UN1120(1)00(2)    |
| 2,000 | 700 | 0.0015         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 7               | 16                  | 424        | 0.7                      | 43              | 76UN1150(1)00(2)           | R76UN1150(1)00(2)    |
| 2,000 | 700 | 0.0018         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 8               | 16                  | 354        | 0.8                      | 43              | 76UN1180(1)00(2)           | R76UN1180(1)00(2)    |
| 2,000 | 700 | 0.0022         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 10              | 16                  | 289        | 1.0                      | 43              | 76UN1220(1)00(2)           | R76UN1220(1)00(2)    |
| 2,000 | 700 | 0.0027         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 12              | 16                  | 236        | 1.2                      | 43              | 76UN1270(1)00(2)           | R76UN1270(1)00(2)    |
| 2,000 | 700 | 0.0033         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 15              | 16                  | 193        | 1.5                      | 43              | 76UN1330(1)00(2)           | R76UN1330(1)00(2)    |
| 2,000 | 700 | 0.0039         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 18              | 16                  | 163        | 1.7                      | 43              | 76UN1390(1)00(2)           | R76UN1390(1)00(2)    |
| 2,000 | 700 | 0.0047         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 21              | 16                  | 135        | 1.8                      | 43              | 76UN1470(1)00(2)           | R76UN1470(1)00(2)    |
| 2,000 | 700 | 0.0056         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 25              | 16                  | 114        | 2.0                      | 43              | 76UN1560(1)00(2)           | R76UN1560(1)00(2)    |
| 2,000 | 700 | 0.0068         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 31              | 16                  | 94         | 2.2                      | 43              | 76UN1680(1)00(2)           | R76UN1680(1)00(2)    |
| 2,000 | 700 | 0.0082         | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 37              | 16                  | 78         | 2.4                      | 43              | 76UN1820(1)30(2)           | R76UN1820(1)30(2)    |
| 2,000 | 700 | 0.01           | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 45              | 16                  | 64         | 2.7                      | 43              | 76UN2100(1)30(2)           | R76UN2100(1)30(2)    |
| 2,000 | 700 | 0.012          | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 54              | 16                  | 53         | 2.9                      | 43              | 76UN2120(1)30(2)           | R76UN2120(1)30(2)    |
| 2,000 | 700 | 0.015          | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 68              | 16                  | 42         | 3.3                      | 43              | 76UN2150(1)40(2)           | R76UN2150(1)40(2)    |
| 2,000 | 700 | 0.018          | 6.0              | 15.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 81              | 16                  | 35         | 3.6                      | 43              | 76UN2180(1)40(2)           | R76UN2180(1)40(2)    |
| 2,000 | 700 | 0.022          | 7.0              | 16.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 99              | 16                  | 29         | 4.1                      | 41              | 76UN2220(1)40(2)           | R76UN2220(1)40(2)    |
| 2,000 | 700 | 0.027          | 7.0              | 16.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 122             | 16                  | 24         | 4.5                      | 41              | 76UN2270(1)40(2)           | R76UN2270(1)40(2)    |
| 2,000 | 700 | 0.033          | 8.5              | 17.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 149             | 16                  | 19         | 5.2                      | 38              | 76UN2330(1)40(2)           | R76UN2330(1)40(2)    |
| 2,000 | 700 | 0.039          | 8.5              | 17.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 176             | 16                  | 16.3       | 5.6                      | 38              | 76UN2390(1)50(2)           | R76UN2390(1)50(2)    |
| 2,000 | 700 | 0.039          | 10.0             | 18.5 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 176             | 16                  | 16         | 5.9                      | 36              | 76UN2390(1)40(2)           | R76UN2390(1)40(2)    |
| 2,000 | 700 | 0.047          | 10.0             | 18.5 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 212             | 16                  | 14         | 6.4                      | 36              | 76UN2470(1)40(2)           | R76UN2470(1)40(2)    |
| 2,000 | 700 | 0.056          | 11.0             | 20.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 252             | 16                  | 20         | 5.4                      | 34              | 76UN2560(1)40(2)           | R76UN2560(1)40(2)    |
| 2,000 | 700 | 0.068          | 11.0             | 20.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 306             | 16                  | 16.4       | 6.0                      | 34              | 76UN2680(1)50(2)           | R76UN2680(1)50(2)    |
| 2,000 | 700 | 0.082          | 13.0             | 22.0 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 369             | 16                  | 13.6       | 6.8                      | 31              | 76UN2820(1)50(2)           | R76UN2820(1)50(2)    |
| 2,000 | 700 | 0.1            | 14.5             | 29.5 | 26.5 | 22.5             | 4,500        | 18,000,000                              | 450             | 16                  | 11.1       | 8.1                      | 27              | 76UN3100(1)50(2)           | R76UN3100(1)50(2)    |
| 2,000 | 700 | 0.022          | 9.0              | 17.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 55              | 18                  | 36         | 4.0                      | 35              | 76UR2220(1)30(2)           | R76UR2220(1)30(2)    |
| 2,000 | 700 | 0.027          | 9.0              | 17.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 68              | 18                  | 29         | 4.4                      | 35              | 76UR2270(1)30(2)           | R76UR2270(1)30(2)    |
| 2,000 | 700 | 0.033          | 9.0              | 17.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 83              | 18                  | 24         | 4.9                      | 35              | 76UR2330(1)30(2)           | R76UR2330(1)30(2)    |
| 2,000 | 700 | 0.039          | 11.0             | 20.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 98              | 18                  | 20         | 5.6                      | 31              | 76UR2390(1)20(2)           | R76UR2390(1)20(2)    |
| 2,000 | 700 | 0.047          | 11.0             | 20.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 118             | 18                  | 17         | 6.1                      | 31              | 76UR2470(1)30(2)           | R76UR2470(1)30(2)    |
| 2,000 | 700 | 0.047          | 24.0             | 15.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 118             | 18                  | 17         | 6.6                      | 27              | 76UR2470(1)L0(2)           | R76UR2470(1)L0(2)    |
| 2,000 | 700 | 0.056          | 13.0             | 22.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 140             | 18                  | 20         | 5.9                      | 29              | 76UR2560(1)30(2)           | R76UR2560(1)30(2)    |
| 2,000 | 700 | 0.056          | 24.0             | 15.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 140             | 18                  | 20         | 6.1                      | 27              | 76UR2560(1)L0(2)           | R76UR2560(1)L0(2)    |
| 2,000 | 700 | 0.068          | 13.0             | 22.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 170             | 18                  | 16         | 6.5                      | 29              | 76UR2680(1)30(2)           | R76UR2680(1)30(2)    |
| 2,000 | 700 | 0.068          | 24.0             | 15.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 170             | 18                  | 16         | 6.7                      | 27              | 76UR2680(1)L0(2)           | R76UR2680(1)L0(2)    |
| 2,000 | 700 | 0.082          | 13.0             | 25.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 205             | 18                  | 14         | 7.3                      | 28              | 76UR2820(1)40(2)           | R76UR2820(1)40(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C



Table 1 – Ratings &amp; Part Number Reference cont.

| VDC   | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|       |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          |                 |                            |                      |
|       |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 2,000 | 700 | 0.082          | 24.0             | 15.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 205             | 18                  | 14         | 7.4                      | 27              | 76UR2820(1)L0(2)           | R76UR2820(1)L0(2)    |
| 2,000 | 700 | 0.1            | 14.0             | 28.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 250             | 18                  | 11         | 8.3                      | 26              | 76UR3100(1)30(2)           | R76UR3100(1)30(2)    |
| 2,000 | 700 | 0.12           | 18.0             | 33.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 300             | 18                  | 20         | 6.6                      | 23              | 76UR3120(1)30(2)           | R76UR3120(1)30(2)    |
| 2,000 | 700 | 0.15           | 18.0             | 33.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 375             | 18                  | 16         | 7.4                      | 23              | 76UR3150(1)30(2)           | R76UR3150(1)30(2)    |
| 2,000 | 700 | 0.18           | 22.0             | 37.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 450             | 18                  | 13         | 8.5                      | 21              | 76UR3180(1)30(2)           | R76UR3180(1)30(2)    |
| 2,000 | 700 | 0.22           | 22.0             | 37.0 | 32.0 | 27.5             | 2,500        | 10,000,000                              | 550             | 18                  | 11         | 9.4                      | 21              | 76UR3220(1)30(2)           | R76UR3220(1)30(2)    |
| 2,000 | 700 | 0.033          | 11.0             | 22.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 50              | 20                  | 24         | 5.5                      | 27              | 76UW2330(1)30(2)           | R76UW2330(1)30(2)    |
| 2,000 | 700 | 0.039          | 11.0             | 22.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 59              | 20                  | 20         | 6.0                      | 27              | 76UW2390(1)30(2)           | R76UW2390(1)30(2)    |
| 2,000 | 700 | 0.047          | 11.0             | 22.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 71              | 20                  | 17         | 6.6                      | 27              | 76UW2470(1)30(2)           | R76UW2470(1)30(2)    |
| 2,000 | 700 | 0.056          | 11.0             | 22.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 84              | 20                  | 20         | 6.1                      | 27              | 76UW2560(1)30(2)           | R76UW2560(1)30(2)    |
| 2,000 | 700 | 0.068          | 11.0             | 22.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 102             | 20                  | 16         | 6.7                      | 27              | 76UW2680(1)30(2)           | R76UW2680(1)30(2)    |
| 2,000 | 700 | 0.082          | 11.0             | 22.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 123             | 20                  | 14         | 7.4                      | 27              | 76UW2820(1)30(2)           | R76UW2820(1)30(2)    |
| 2,000 | 700 | 0.082          | 24.0             | 15.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 123             | 20                  | 14         | 7.8                      | 24              | 76UW2820(1)L0(2)           | R76UW2820(1)L0(2)    |
| 2,000 | 700 | 0.1            | 13.0             | 24.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 150             | 20                  | 11         | 8.4                      | 25              | 76UW3100(1)30(2)           | R76UW3100(1)30(2)    |
| 2,000 | 700 | 0.1            | 24.0             | 15.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 150             | 20                  | 11         | 8.6                      | 24              | 76UW3100(1)L0(2)           | R76UW3100(1)L0(2)    |
| 2,000 | 700 | 0.12           | 13.0             | 24.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 180             | 20                  | 20         | 6.3                      | 25              | 76UW3120(1)30(2)           | R76UW3120(1)30(2)    |
| 2,000 | 700 | 0.12           | 24.0             | 15.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 180             | 20                  | 20         | 6.4                      | 24              | 76UW3120(1)L0(2)           | R76UW3120(1)L0(2)    |
| 2,000 | 700 | 0.15           | 16.0             | 28.5 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 225             | 20                  | 16         | 7.5                      | 23              | 76UW3150(1)30(2)           | R76UW3150(1)30(2)    |
| 2,000 | 700 | 0.15           | 24.0             | 19.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 225             | 20                  | 16         | 7.4                      | 23              | 76UW3150(1)L0(2)           | R76UW3150(1)L0(2)    |
| 2,000 | 700 | 0.18           | 16.0             | 28.5 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 270             | 20                  | 13         | 8.2                      | 23              | 76UW3180(1)30(2)           | R76UW3180(1)30(2)    |
| 2,000 | 700 | 0.18           | 24.0             | 19.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 270             | 20                  | 13         | 8.1                      | 23              | 76UW3180(1)L0(2)           | R76UW3180(1)L0(2)    |
| 2,000 | 700 | 0.22           | 19.0             | 32.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 330             | 20                  | 11         | 9.4                      | 21              | 76UW3220(1)30(2)           | R76UW3220(1)30(2)    |
| 2,000 | 700 | 0.27           | 20.0             | 40.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 405             | 20                  | 9          | 11.0                     | 19              | 76UW3270(1)30(2)           | R76UW3270(1)30(2)    |
| 2,000 | 700 | 0.33           | 20.0             | 40.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 495             | 20                  | 7          | 12.1                     | 19              | 76UW3330(1)30(2)           | R76UW3330(1)30(2)    |
| 2,000 | 700 | 0.39           | 24.0             | 44.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 585             | 20                  | 8          | 11.9                     | 17              | 76UW3390(1)30(2)           | R76UW3390(1)30(2)    |
| 2,000 | 700 | 0.47           | 24.0             | 44.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 705             | 20                  | 7          | 13.1                     | 17              | 76UW3470(1)30(2)           | R76UW3470(1)30(2)    |
| 2,000 | 700 | 0.56           | 30.0             | 45.0 | 41.5 | 37.5             | 1,500        | 6,000,000                               | 840             | 20                  | 6          | 14.8                     | 16              | 76UW3560(1)30(2)           | R76UW3560(1)30(2)    |
| VDC   | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz 85°C          | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|       |     |                |                  |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR max    | I <sub>rms max</sub> (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) H = 2.5% (only for C ≥ 1,000 pF), J = 5%, K = 10%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C in the hot spot > T<sub>HS</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

## Soldering Process

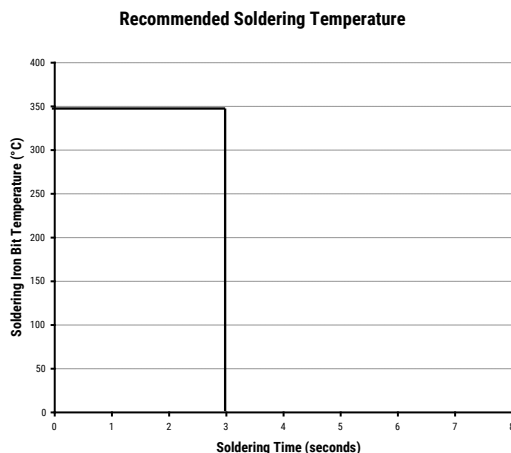
The implementation of the RoHS directive has resulted in the selection of SnAgCu (SAC) alloys or SnCu alloys as primary solder. This has increased the liquidus temperature from that of 183°C for SnPb eutectic alloy to 217 – 221°C for the new alloys. As a result, the heat stress to the components, even in wave soldering, has increased considerably due to higher pre-heat and wave temperatures. Polypropylene capacitors are especially sensitive to heat (the melting point of polypropylene is 160 – 170°C). Wave soldering can be destructive, especially for mechanically small polypropylene capacitors (with lead spacing of 5 mm to 15 mm), and great care has to be taken during soldering. The recommended solder profiles from KEMET should be used. Please consult KEMET with any questions. In general, the wave soldering curve from IEC Publication 61760–1 Edition 2 serves as a solid guideline for successful soldering. Please see Figure 1.

Reflow soldering is not recommended for through-hole film capacitors. Exposing capacitors to a soldering profile in excess of the above recommended limits may result in degradation or permanent damage to the capacitors.

Do not place the polypropylene capacitor through an adhesive curing oven to cure resin for surface mount components. Insert through-hole parts after the curing of surface mount parts. Consult KEMET to discuss the actual temperature profile in the oven, if through-hole components must pass through the adhesive curing process. A maximum two soldering cycles is recommended. Please allow time for the capacitor surface temperature to return to a normal temperature before the second soldering cycle.

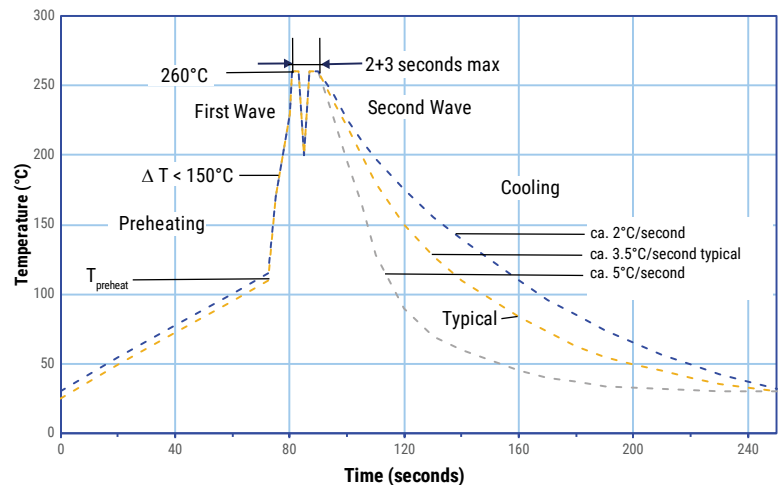
### Manual Soldering Recommendations

Following is the recommendation for manual soldering with a soldering iron.



The soldering iron tip temperature should be set at 350°C (+10°C maximum) with the soldering duration not to exceed more than 3 seconds.

### Wave Soldering Recommendations





## Soldering Process cont.

### Wave Soldering Recommendations cont.

1. The table indicates the maximum set-up temperature of the soldering process

Figure 1

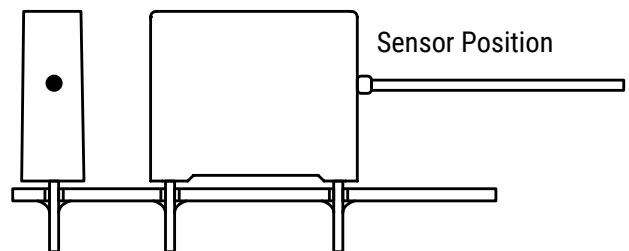
| Film Material                                                     | Maximum Preheat Temperature |                         | Maximum Peak Soldering Temperature |                         |
|-------------------------------------------------------------------|-----------------------------|-------------------------|------------------------------------|-------------------------|
|                                                                   | Capacitor Pitch ≤ 15 mm     | Capacitor Pitch > 15 mm | Capacitor Pitch ≤ 15 mm            | Capacitor Pitch > 15 mm |
| Double Metallized Polystyrene and Single Metallized Polypropylene | 110°C                       | 130°C                   | 260°C                              | 270°C                   |

2. The maximum temperature measured on the capacitor body:

Set the temperature so that the maximum temperature is below the limit:

| Film Material                                                     | Maximum Temperature Measured on the Capacitor Body |
|-------------------------------------------------------------------|----------------------------------------------------|
| Double Metallized Polystyrene and Single Metallized Polypropylene | 120°C (for series R76)                             |

Duration: < 60 seconds



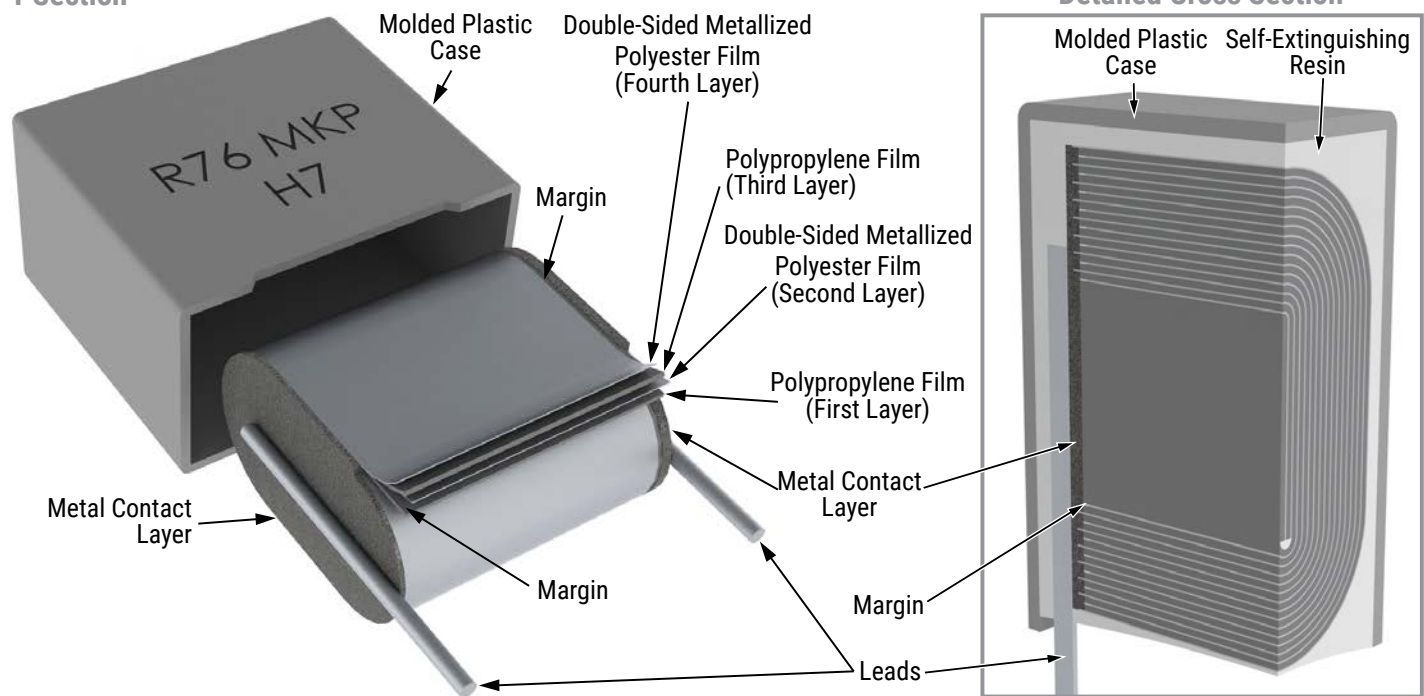
### Selective Soldering Recommendations

Selective dip soldering is a variation of reflow soldering. In this method, the printed circuit board with through-hole components to be soldered is preheated and transported over the solder bath as in normal flow soldering without touching the solder. When the board is over the bath, it is stopped and pre-designed solder pots are lifted from the bath with molten solder only at the places of the selected components, and pressed against the lower surface of the board to solder the components.

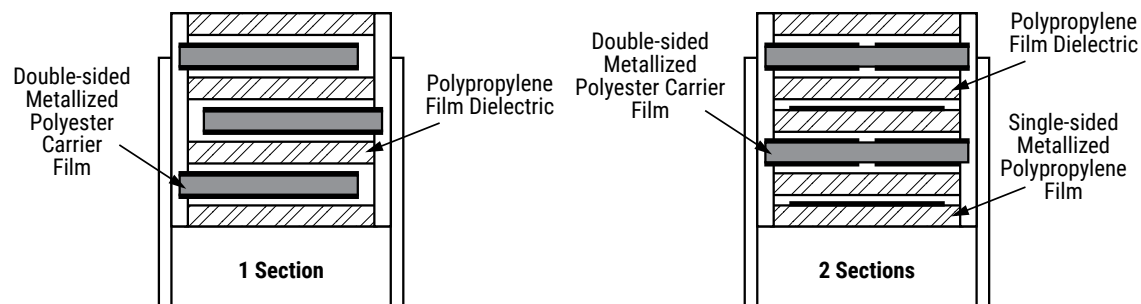
The temperature profile for selective soldering is similar to the double wave flow soldering outlined in this document, **however, instead of two baths, there is only one bath with a time from 3 to 10 seconds.** In selective soldering, the risk of overheating is greater than in double wave flow soldering, and great care must be taken so that the parts are not overheated.

## Construction

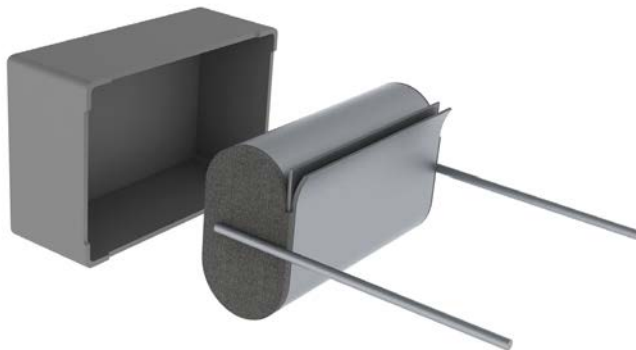
### 1 Section



### Winding Schemes



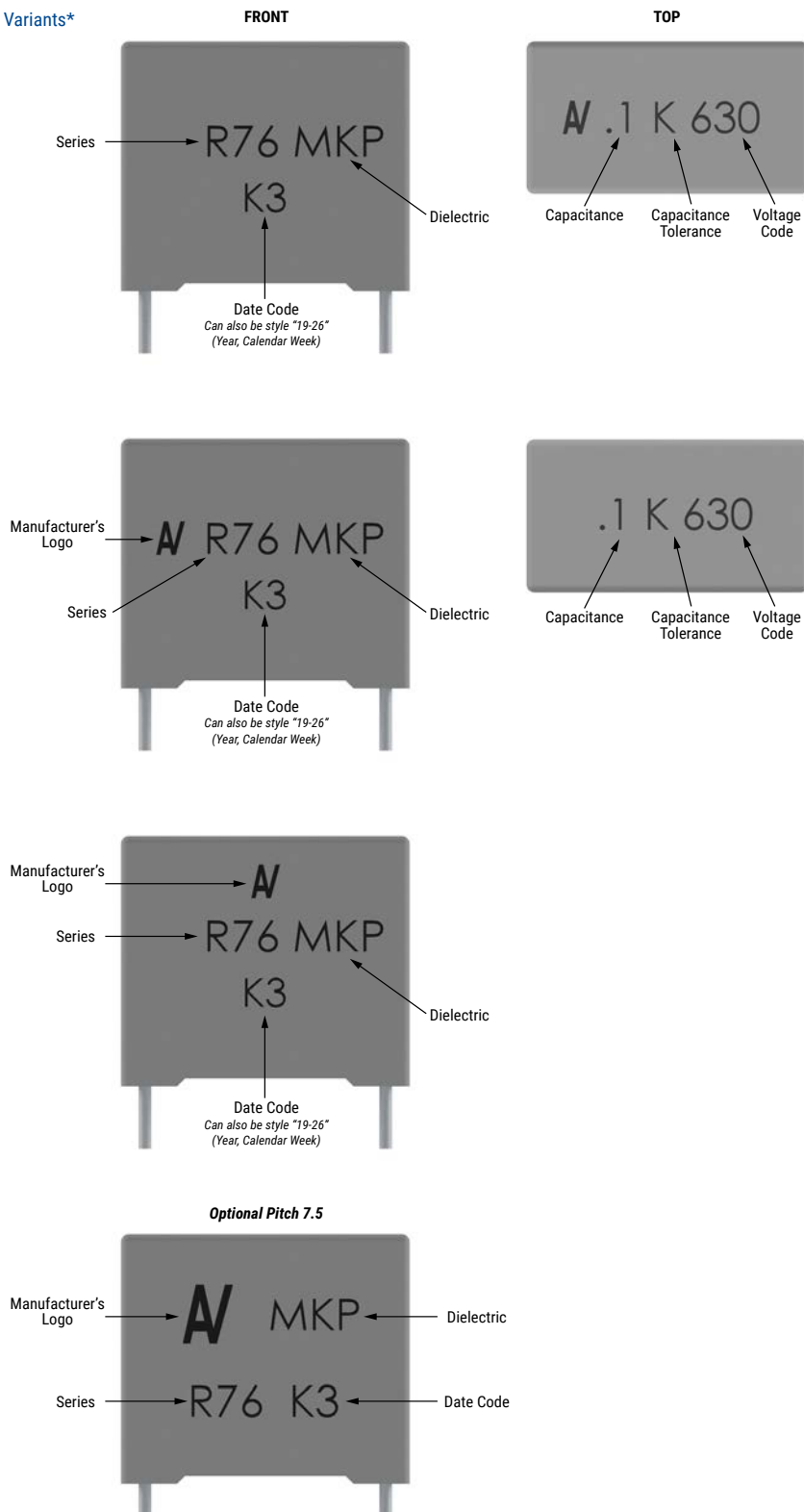
### Low Profile Version



## Marking

Pitch – 7.5, 10, 15, & 22.5

Marking Variants\*

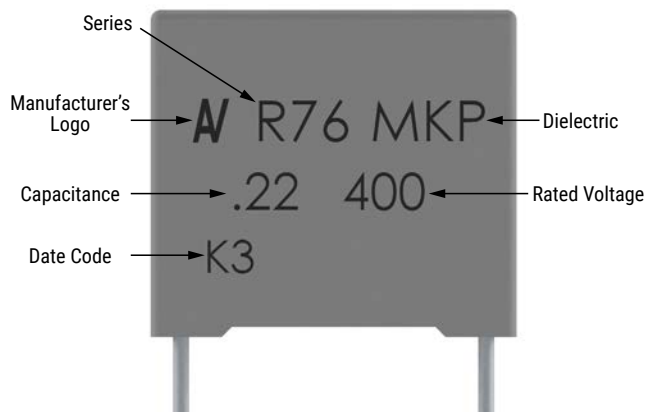
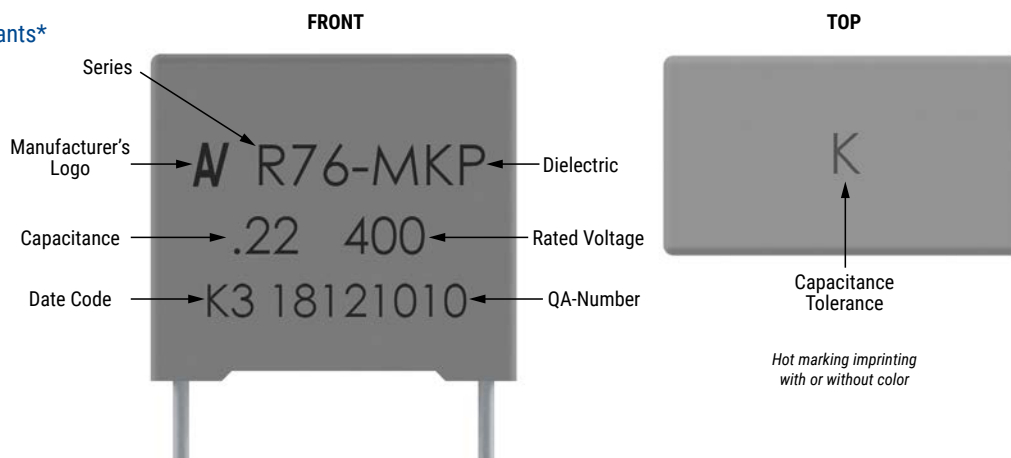


\*Differences are caused by technology (clichee, laser, or ink) and technic (production line)

## Marking cont.

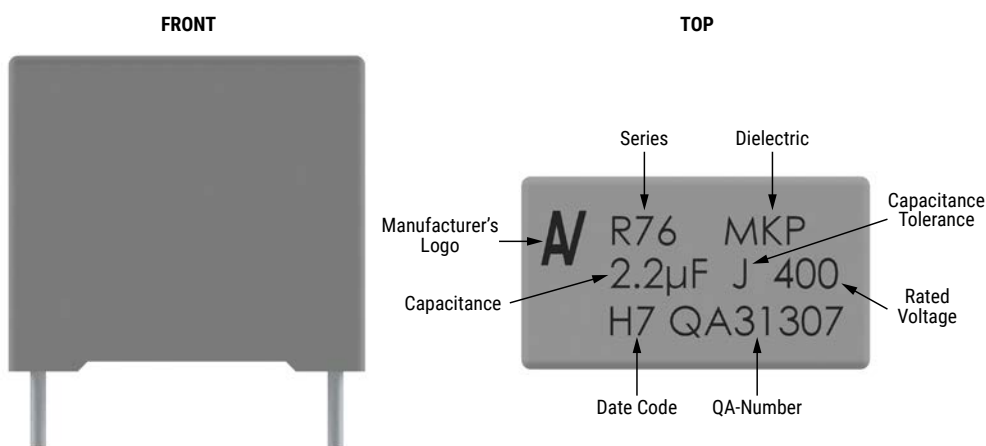
Pitch – 7.5, 10, 15, 22.5, 27.5, & 37.5

Marking Variants\*



Pitch – 22.5, 27.5, & 37.5

Marking Variants\*



\* Differences are caused by technology (clichee, laser, or ink) and technic (production line)

## Marking cont.

| Manufacturing Date Code (IEC-60062) |      |           |      |
|-------------------------------------|------|-----------|------|
| Year                                | Code | Month     | Code |
| 2010                                | A    | January   | 1    |
| 2011                                | B    | February  | 2    |
| 2012                                | C    | March     | 3    |
| 2013                                | D    | April     | 4    |
| 2014                                | E    | May       | 5    |
| 2015                                | F    | June      | 6    |
| 2016                                | H    | July      | 7    |
| 2017                                | J    | August    | 8    |
| 2018                                | K    | September | 9    |
| 2019                                | L    | October   | 0    |
| 2020                                | M    | November  | N    |
| 2021                                | N    | December  | D    |
| 2022                                | P    |           |      |
| 2023                                | R    |           |      |
| 2024                                | S    |           |      |
| 2025                                | T    |           |      |
| 2026                                | U    |           |      |
| 2027                                | V    |           |      |
| 2028                                | W    |           |      |
| 2029                                | X    |           |      |
| 2030                                | A    |           |      |

## Packaging Quantities

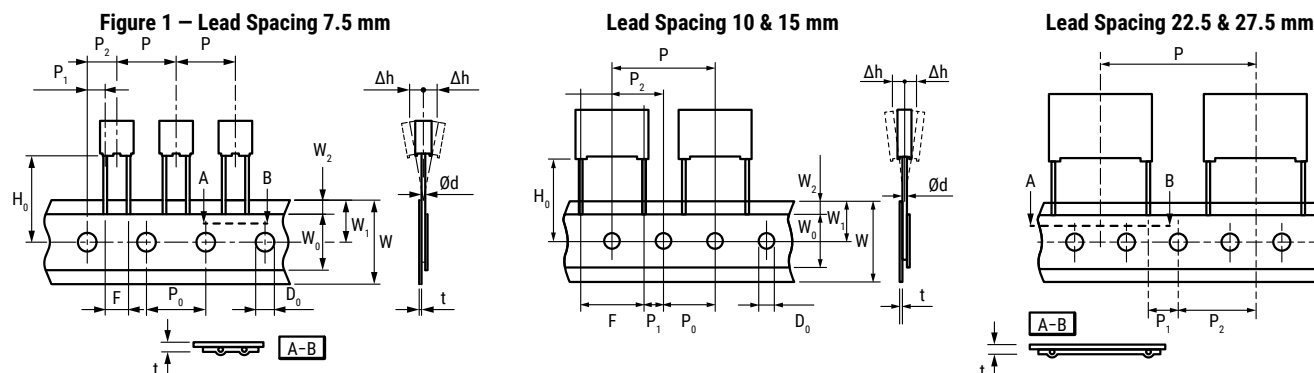
| Lead Spacing | Thickness (mm)          | Height (mm) | Length (mm) | Bulk Short Leads        | Bulk Long Leads                   |         | Standard Reel<br>ø 355 mm | Large Reel<br>ø 500 mm | Ammo Taped |
|--------------|-------------------------|-------------|-------------|-------------------------|-----------------------------------|---------|---------------------------|------------------------|------------|
|              | Lead and Packaging Code |             |             | JA - JB<br>JE - JH - SE | Z3 <sup>1</sup> - JM <sup>2</sup> | 40 - 50 | GY - CK <sup>1</sup>      | CK                     | DQ         |
| 7.5          | 3.0                     | 8.0         | 10.0        | 1,500                   | 1,750                             | -       | 2,100                     | -                      | 2,800      |
|              | 4.0                     | 9.0         | 10.0        | 2,000                   | 1,500                             | -       | 1,500                     | -                      | 2,100      |
|              | 5.0                     | 10.5        | 10.0        | 1,500                   | 1,000                             | -       | 1,200                     | -                      | 1,600      |
|              | 6.0                     | 12.0        | 10.5        | 1,000                   | 800                               | -       | 1,000                     | -                      | 1,350      |
| 10           | 4.0                     | 9.0         | 13.0        | 2,000                   | 2,200                             | 1,800   | 750                       | 1,500                  | 1,000      |
|              | 5.0                     | 11.0        | 13.0        | 1,300                   | 2,000                             | 1,500   | 600                       | 1,250                  | 800        |
|              | 6.0                     | 12.0        | 13.0        | 1,000                   | 1,800                             | 1,200   | 500                       | 1,000                  | 680        |
| 15           | 4.0                     | 10.0        | 18.0        | 2,500                   | 1,500                             | 1,500   | 750                       | 1,500                  | 1,000      |
|              | 5.0                     | 11.0        | 18.0        | 2,000                   | 1,250                             | 1,000   | 600                       | 1,250                  | 800        |
|              | 6.0                     | 12.0        | 18.0        | 1,750                   | 1,000                             | 900     | 500                       | 1,000                  | 680        |
|              | 7.5                     | 13.5        | 18.0        | 1,000                   | 800                               | 700     | 350                       | 800                    | 500        |
|              | 8.5                     | 14.5        | 18.0        | 1,000                   | 650                               | 500     | 300                       | 700                    | 440        |
|              | 9.0                     | 12.5        | 18.0        | 1,000                   | 700                               | 520     | 270                       | 650                    | 410        |
|              | 10.0                    | 16.0        | 18.0        | 750                     | 550                               | 500     | 270                       | 600                    | 380        |
|              | 11.0                    | 19.0        | 18.0        | 450                     | 400                               | 350     | 270                       | 500                    | 340        |
|              | 13.0                    | 12.0        | 18.0        | 750                     | 520                               | 490     | 200                       | 480                    | 280        |
| 22.5         | 6.0                     | 15.0        | 26.5        | 805                     | 450                               | 500     | 300                       | 700                    | 464        |
|              | 7.0                     | 16.0        | 26.5        | 700                     | 450                               | 500     | 250                       | 550                    | 380        |
|              | 8.5                     | 17.0        | 26.5        | 468                     | 350                               | 300     | 250                       | 450                    | 280        |
|              | 10.0                    | 18.5        | 26.5        | 396                     | 350                               | 300     | 160                       | 350                    | 235        |
|              | 11.0                    | 20.0        | 26.5        | 360                     | 200                               | 250     | 160                       | 350                    | 217        |
|              | 13.0                    | 22.0        | 26.5        | 300                     | 150                               | 200     | 130                       | 300                    | -          |
|              | 14.5                    | 29.5        | 26.5        | 264                     | 120                               | -       | -                         | -                      | -          |
| 27.5         | 9.0                     | 17.0        | 32.0        | 816                     | -                                 | 408     | 230                       | 450                    | -          |
|              | 11.0                    | 20.0        | 32.0        | 560                     | -                                 | 336     | 190                       | 350                    | -          |
|              | 13.0                    | 12.0        | 32.0        | 672                     | -                                 | 288     | -                         | -                      | -          |
|              | 13.0                    | 22.0        | 32.0        | 480                     | -                                 | 288     | 150                       | 300                    | -          |
|              | 13.0                    | 25.0        | 32.0        | 480                     | -                                 | 288     | -                         | 300                    | -          |
|              | 14.0                    | 28.0        | 32.0        | 352                     | -                                 | 176     | -                         | -                      | -          |
|              | 16.0                    | 30.0        | 32.0        | 288                     | -                                 | 144     | -                         | -                      | -          |
|              | 18.0                    | 33.0        | 32.0        | 256                     | -                                 | 128     | -                         | -                      | -          |
|              | 22.0                    | 37.0        | 32.0        | 168                     | -                                 | 112     | -                         | -                      | -          |
|              | 24.0                    | 15.0        | 32.0        | 336                     | -                                 | 144     | -                         | -                      | -          |
| 37.5         | 11.0                    | 22.0        | 41.5        | 420                     | -                                 | 252     | -                         | -                      | -          |
|              | 13.0                    | 24.0        | 41.5        | 360                     | -                                 | 216     | -                         | -                      | -          |
|              | 16.0                    | 28.5        | 41.5        | 216                     | -                                 | 108     | -                         | -                      | -          |
|              | 19.0                    | 32.0        | 41.5        | 192                     | -                                 | 96      | -                         | -                      | -          |
|              | 20.0                    | 40.0        | 41.5        | 126                     | -                                 | 84      | -                         | -                      | -          |
|              | 24.0                    | 15.0        | 41.5        | 252                     | -                                 | 108     | -                         | -                      | -          |
|              | 24.0                    | 19.0        | 41.5        | 216                     | -                                 | 108     | -                         | -                      | -          |
|              | 24.0                    | 44.0        | 41.5        | 108                     | -                                 | 72      | -                         | -                      | -          |
|              | 30.0                    | 45.0        | 41.5        | 90                      | -                                 | 60      | -                         | -                      | -          |

1 Only for 7.5 mm lead spacing.

2 Only for > 7.5 mm lead spacing.



## Lead Taping & Packaging (IEC 60286-2)



## Taping Specification

| Description                          | Symbol              | Dimensions (mm) |      |           |       |       |           |
|--------------------------------------|---------------------|-----------------|------|-----------|-------|-------|-----------|
|                                      |                     | Lead Spacing    |      |           |       |       | Tolerance |
|                                      |                     | 7.5             | 10.0 | 15.0      | 22.5  | 27.5  |           |
| Lead wire diameter                   | d                   | 0.5 – 0.6       | 0.6  | 0.6 – 0.8 | 0.8   | 0.8   | ±0.05     |
| Taping lead space                    | P                   | 12.7            | 25.4 | 25.4      | 38.1  | 38.1  | ±1        |
| Feed hole lead space *               | P <sub>0</sub>      | 12.7            | 12.7 | 12.7      | 12.7  | 12.7  | ±0.2 **   |
| Centering of the lead wire           | P <sub>1</sub>      | 2.6             | 7.7  | 5.2       | 7.8   | 5.3   | ±0.7      |
| Centering of the body                | P <sub>2</sub>      | 6.35            | 12.7 | 12.7      | 19.05 | 19.05 | ±1.3      |
| Lead spacing ***                     | F                   | 7.5             | 10.0 | 15.0      | 22.5  | 27.5  | +0.6/-0.1 |
| Component alignment                  | Δh                  | 0               | 0    | 0         | 0     | 0     | ±2        |
| Component deviation                  | Δp                  | 0               | 0    | 0         | 0     | 0     | ±1        |
| Height of component from tape center | H <sub>0</sub> **** | 18.5            | 18.5 | 18.5      | 18.5  | 18.5  | ±0.5      |
| Carrier tape width                   | W                   | 18              | 18   | 18        | 18    | 18    | +1/-0.5   |
| Hold down tape width                 | W <sub>0</sub>      | 6               | 9    | 10        | 10    | 10    | Minimum   |
| Hole position                        | W <sub>1</sub>      | 9               | 9    | 9         | 9     | 9     | ±0.5      |
| Hold down tape position              | W <sub>2</sub>      | 3               | 3    | 3         | 3     | 3     | Maximum   |
| Feed hole diameter                   | D <sub>0</sub>      | 4               | 4    | 4         | 4     | 4     | ±0.2      |
| Total Tape thickness                 | t                   | 0.7             | 0.7  | 0.7       | 0.7   | 0.7   | ±0.2      |

\* Available also 15 mm.

\*\* Maximum 1 mm on 20 lead spacing.

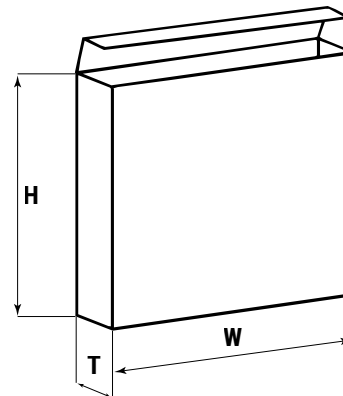
\*\*\* 15 mm and 10 mm taped to 7.5 mm (crimped leads) available upon request.

\*\*\*\* H<sub>0</sub> = 16.5 mm is available upon request.

## Lead Taping & Packaging (IEC 60286-2) cont.

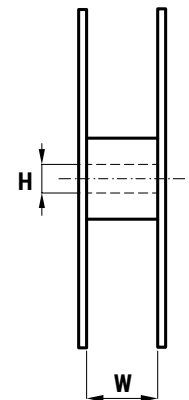
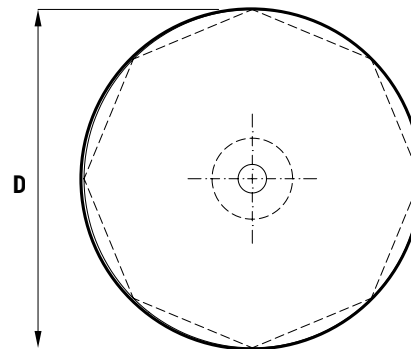
### Ammo Specifications

| Dimensions (mm) |     |    |
|-----------------|-----|----|
| H               | W   | T  |
| 360             | 340 | 59 |



### Reel Specifications

| Dimensions (mm) |          |            |
|-----------------|----------|------------|
| D               | H        | W          |
| 355<br>500      | 30<br>25 | 55 Maximum |



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