

## Surface Mount Type

## POSCAP

Series : TPU



### Features

- Small size, Low profile (L2.0 × W 1.25 × H 0.9 mm)
- Face down terminal type
- RoHS compliance, Halogen free

### Specifications

| Size code                  | S09                                             | B09                                      |
|----------------------------|-------------------------------------------------|------------------------------------------|
| Category temperature range | -55 °C to +85 °C                                |                                          |
| Rated voltage range        | 2.5 V.DC to 10 V.DC                             | 6.3 V.DC                                 |
| Category voltage range     | 2.5 V.DC to 10 V.DC                             | 6.3 V.DC                                 |
| Rated capacitance range    | 4.7 µF to 100 µF                                | 150 µF                                   |
| Capacitance tolerance      | ±20 % (120 Hz / + 20 °C)                        |                                          |
| Leakage current            | Please see the attached characteristics list    |                                          |
| Dissipation factor (tan δ) | Please see the attached characteristics list    |                                          |
| Surge voltage (V.DC)       | Rated voltage × 1.15                            |                                          |
| Endurance                  | +85 °C, 1000 h, rated voltage applied           |                                          |
|                            | Capacitance change                              | Within ±20 % of the initial value        |
|                            | tan δ                                           | ≤ 1.5 times of the initial limit         |
|                            | DC leakage current                              | Within the initial limit                 |
| Damp heat (Steady State)   | +60 °C, 90 % to 95 %, 500 h, No-applied voltage |                                          |
|                            | Capacitance change                              | Within +40 %, -20 % of the initial value |
|                            | tan δ                                           | ≤ 1.5 times of the initial limit         |
|                            | DC leakage current                              | ≤ 3 times of the initial limit           |

### Marking

S09 Size

B09 Size

| R. Voltage (VDC) | 2.5 | 4.0 | 6.3 | 10.0 |
|------------------|-----|-----|-----|------|
| Code             | e   | g   | j   | A    |

S09 Size

| R. Cap. ( $\mu$ F) | 4.7 | 10 | 22 | 47 | 68 | 100 |
|--------------------|-----|----|----|----|----|-----|
| Code               | s   | A  | J  | S  | W  | A   |

B09 Size

| R. Cap. ( $\mu$ F) | 150 |
|--------------------|-----|
| Code               | E8  |

### Dimensions (not to scale)

|                                                         |         |         |       |         |        |
|---------------------------------------------------------|---------|---------|-------|---------|--------|
|                                                         |         |         |       |         |        |
| Unit : mm                                               |         |         |       |         |        |
| Size code                                               | L±0.1*1 | W±0.1*1 | H±0.1 | S±0.1*1 | W1±0.1 |
| S09                                                     | 2.0     | 1.25    | 0.9   | 0.5     | 0.9    |
| B09                                                     | 3.5     | 2.8     | 0.9   | 0.8     | 2.2    |
| *1 Externals of figure are the reference. *1 ±0.2 : B09 |         |         |       |         |        |

### Characteristics list

| Series | Rated voltage (V.DC) | Rated temp. (°C) | Category voltage (V.DC) | Category temp. (°C) | Rated capacitance (µF) | Case size (mm) |      |     | Size code | Specifications               |                 |         |           | Standard    |                          | Floor life         |                    |
|--------|----------------------|------------------|-------------------------|---------------------|------------------------|----------------|------|-----|-----------|------------------------------|-----------------|---------|-----------|-------------|--------------------------|--------------------|--------------------|
|        |                      |                  |                         |                     |                        | L              | W    | H   |           | Ripple*1 current (mA r.m.s.) | ESR*2 (mΩ max.) | tan δ*3 | LC*4 (µA) | Part number | Min. Packaging Qty (pcs) | Reflow Temp ≤260°C | Reflow Temp ≤250°C |
| TPU    | 2.5                  | 85               | 2.5                     | 85                  | 47                     | 2.0            | 1.25 | 0.9 | S09       | 510                          | 150             | 0.10    | 23.5      | 2R5TPU47MSI | 3000                     | -                  | 3                  |
|        |                      | 85               | 2.5                     | 85                  | 100                    | 2.0            | 1.25 | 0.9 |           | 510                          | 150             | 0.10    | 50.0      | ETPU100MSI  | 3000                     |                    |                    |
|        | 4                    | 85               | 4.0                     | 85                  | 68                     | 2.0            | 1.25 | 0.9 |           | 510                          | 150             | 0.10    | 54.4      | 4TPU68MSI   | 3000                     |                    |                    |
|        |                      | 85               | 6.3                     | 85                  | 10                     | 2.0            | 1.25 | 0.9 |           | 400                          | 250             | 0.10    | 6.3       | 6TPU10MSI   | 3000                     |                    |                    |
|        | 6.3                  | 85               | 6.3                     | 85                  | 22                     | 2.0            | 1.25 | 0.9 |           | 510                          | 150             | 0.10    | 27.7      | 6TPU22MSI   | 3000                     |                    |                    |
|        |                      | 85               | 6.3                     | 85                  | 47                     | 2.0            | 1.25 | 0.9 |           | 510                          | 150             | 0.10    | 59.2      | 6TPU47MSI   | 3000                     |                    |                    |
|        |                      | 85               | 6.3                     | 85                  | 150                    | 3.5            | 2.8  | 0.9 | B09       | 670                          | 100             | 0.10    | 94.5      | 6TPU150MBI  | 3000                     | 3                  |                    |
|        |                      | 85               | 6.3                     | 85                  | 4.7                    | 2.0            | 1.25 | 0.9 | S09       | 360                          | 300             | 0.10    | 4.7       | 10TPU4R7MSI | 3000                     |                    |                    |

\*1 Ripple current (100 kHz/ +45 °C), \*2 ESR (100 kHz/+20 °C) \*3 tan δ (120 Hz/+20 °C) \*4 After 5 minutes

◆ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".