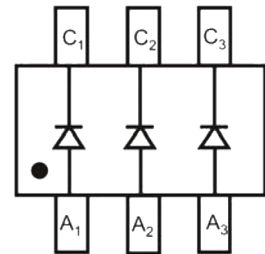
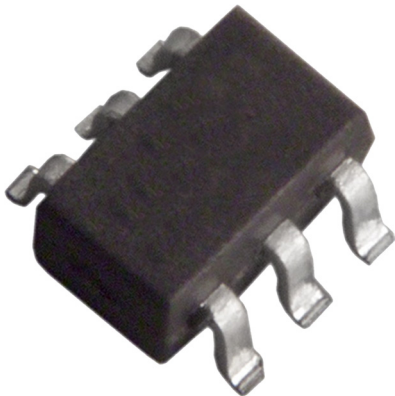


# Surface Mount Fast Switching Diode

**multicomp**PRO



SOT-363

## Features:

- Fast Switching Speed
- For General Purpose Switching Application
- Ultra-Small Surface Mount Package
- High Conductance

## Applications:

- For general purpose switching application

## Maximum Ratings:

**T<sub>A</sub> = 25°C unless otherwise specified.**

| Characteristic                                                                        | Symbol                                                 | Value       | Unit |
|---------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|------|
| Non-repetitive peak reverse Voltage                                                   | V <sub>RM</sub>                                        | 100         | V    |
| Peak repetitive reverse Voltage<br>Working peak reverse voltage<br>DC reverse voltage | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 75          | V    |
| Forward continuous current                                                            | I <sub>FM</sub>                                        | 300         | mA   |
| Average rectified output current                                                      | I <sub>O</sub>                                         | 150         | mA   |
| Non-Repetitive peak forward surge current<br>at t=1μs<br>at t=1s                      | I <sub>FSM</sub>                                       | 2<br>1      | A    |
| Power dissipation                                                                     | P <sub>D</sub>                                         | 200         | mW   |
| Thermal resistance, junction to ambient                                               | R <sub>θJA</sub>                                       | 625         | °C/W |
| Junction and storage temperature                                                      | T <sub>J</sub> , T <sub>stg</sub>                      | -65 to +150 | °C   |

Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
Element14.com/multicomp-pro

**multicomp**PRO

# Surface Mount Fast Switching Diode

**multicomp**PRO

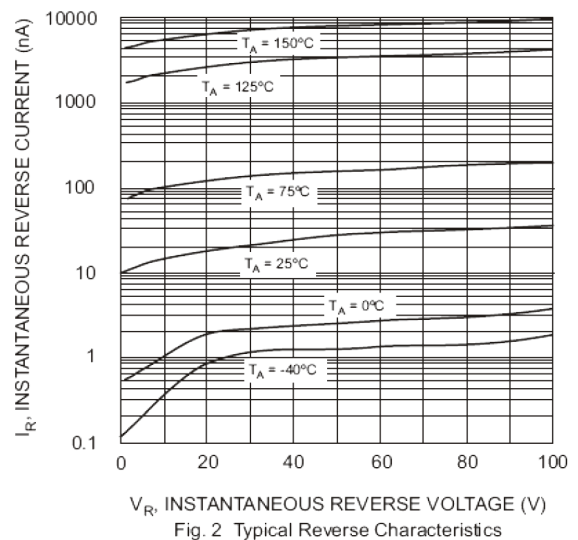
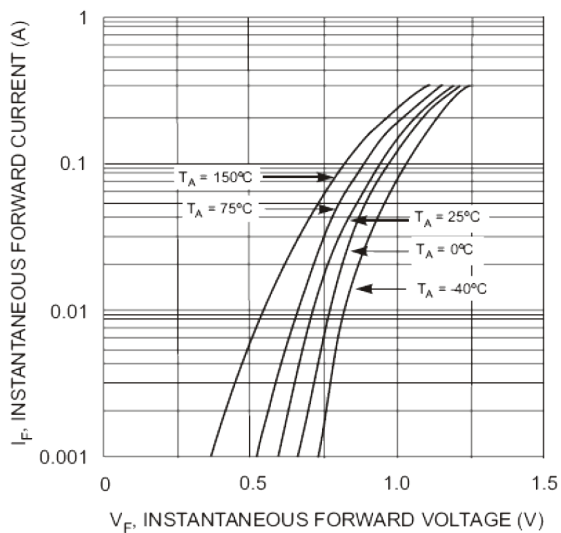
## Electrical Characteristics:

$T_A = 25^\circ\text{C}$  unless otherwise specified.

| Parameter                 | Symbol      | Test conditions                                                                          | Min. | Max.                        | Unit |
|---------------------------|-------------|------------------------------------------------------------------------------------------|------|-----------------------------|------|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R = 1\mu\text{A}$                                                                     | 75   | -                           | V    |
| Forward voltage           | $V_F$       | $I_F = 1\text{mA}$<br>$I_F = 10\text{mA}$<br>$I_F = 50\text{mA}$<br>$I_F = 150\text{mA}$ | -    | 0.715<br>0.855<br>1<br>1.25 | V    |
| Total Capacitance         | $C_T$       | $V_{CB} = 10\text{V}$ , $f = 1\text{MHz}$ , $I_E = 0$                                    | -    | 2                           | pF   |
| Reverse Recovery time     | $t_{rr}$    | $I_F = I_R = 10\text{mA}$ , $I_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$                | -    | 4                           | ns   |

## Typical Characteristics:

$T_A = 25^\circ\text{C}$  unless otherwise specified.



# Surface Mount Fast Switching Diode

**multicomp**PRO

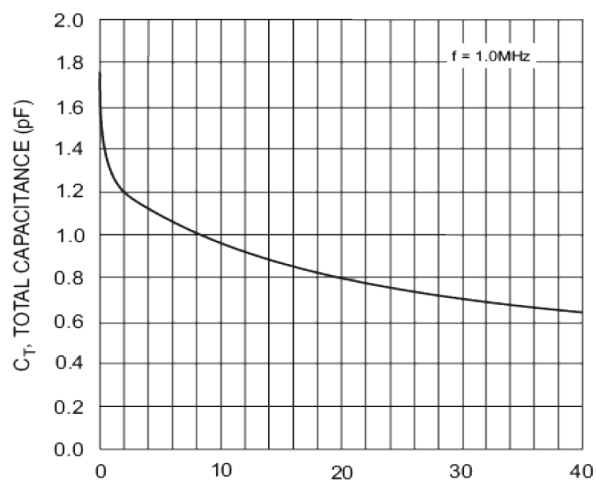


Fig. 3 Typical Capacitance vs. Reverse Voltage

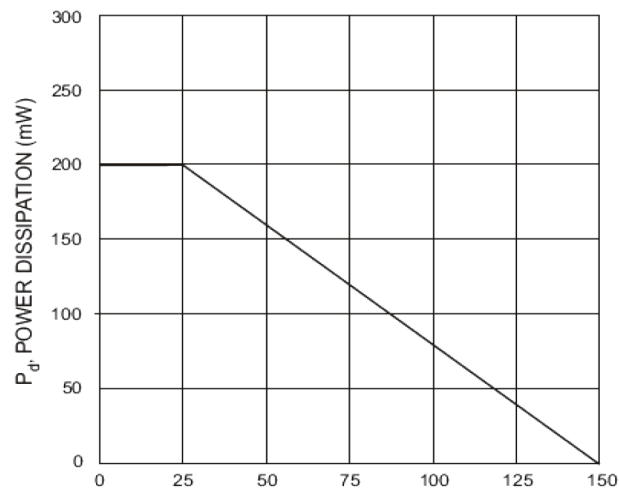
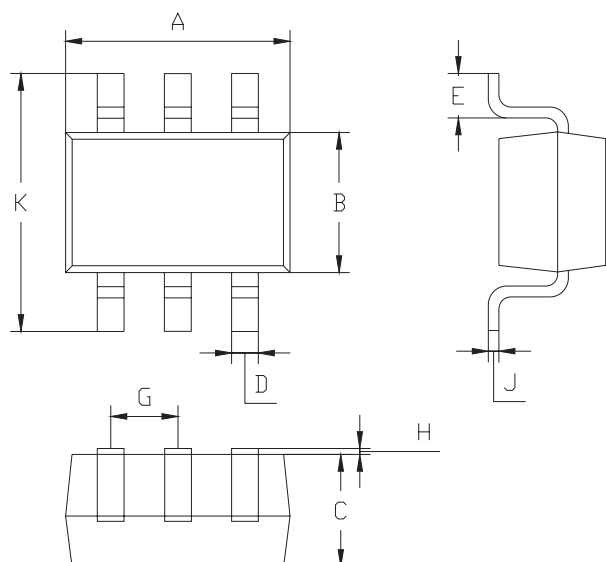


Fig. 4 Power Derating Curve

## Package Outline:

Plastic surface mounted package



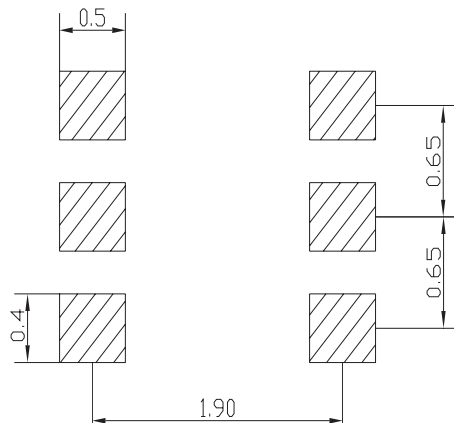
| SOT-363 |           |      |
|---------|-----------|------|
| Dim.    | Min.      | Max. |
| A       | 1.8       | 2.2  |
| B       | 1.15      | 1.35 |
| C       | 1 Typ.    |      |
| D       | 0.1       | 0.3  |
| E       | 0.25      | 0.4  |
| G       | 0.65 Typ. |      |
| H       | 0.02      | 0.1  |
| J       | 0.1 Typ.  |      |
| K       | 2.1       | 2.3  |

Dimensions : Millimetres

# Surface Mount Fast Switching Diode

**multicomp**PRO

## Soldering Footprint:



Dimensions : Millimetres

## Package Information:

| Device      | Package | Shipping            |
|-------------|---------|---------------------|
| BAS16TW-7-F | SOT-363 | 3,000 / Tape & Reel |

## Part Number Table

| Description                        | Part Number |
|------------------------------------|-------------|
| Surface Mount Fast Switching Diode | BAS16TW-7-F |

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
Element14.com/multicomp-pro

**multicomp**PRO