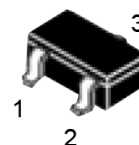
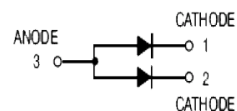
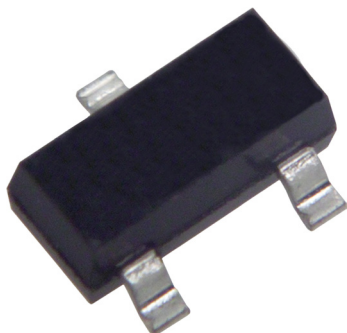


# Surface Mount Schottky Barrier Diode

**multicomp**PRO



SOT-323

## Features:

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring For Transient and ESD Protection

## Applications:

- For general purpose switching applications

## Maximum Ratings:

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

| Parameter                                                                                | Symbol                                                 | Limits      | Unit |
|------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|------|
| RMS reverse voltage                                                                      | V <sub>R(RMS)</sub>                                    | 28          | V    |
| Repetitive Peak reverse voltage<br>Working peak reverse voltage<br>Diode reverse voltage | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 40          | V    |
| Forward continuous current                                                               | I <sub>F</sub>                                         | 200         | mA   |
| Non-Repetitive peak forward surge Current at t=1μs                                       | I <sub>FS</sub>                                        | 600         | mA   |
| Power dissipation                                                                        | P <sub>D</sub>                                         | 200         | mW   |
| Junction and storage temperature range                                                   | T <sub>J</sub> , T <sub>stg</sub>                      | -65 to +150 | °C   |

# Surface Mount Schottky Barrier Diode

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## Electrical Characteristics:

TA = 25°C unless otherwise specified.

| Parameter                       | Symbol      | Test conditions                     | Min. | Max.         | Unit |
|---------------------------------|-------------|-------------------------------------|------|--------------|------|
| Reverse breakdown voltage       | $V_{(BR)R}$ | $I_R = 10\mu A$                     | 40   |              | V    |
| Reverse voltage leakage current | $I_R$       | $V_R = 30V$                         |      | 200          | nA   |
| Forward voltage                 | $V_F$       | $I_F = 1mA$<br>$I_F = 40mA$         |      | 380<br>1,000 | mV   |
| Diode capacitance               | $C_D$       | $V_R = 0V, f = 1MHz$                |      | 5            | pF   |
| Reverse recovery time           | $t_{rr}$    | $I_F = I_R = 10mA, R_L = 100\Omega$ |      | 5            | nS   |

## Typical Characteristics:

TA = 25°C unless otherwise specified.

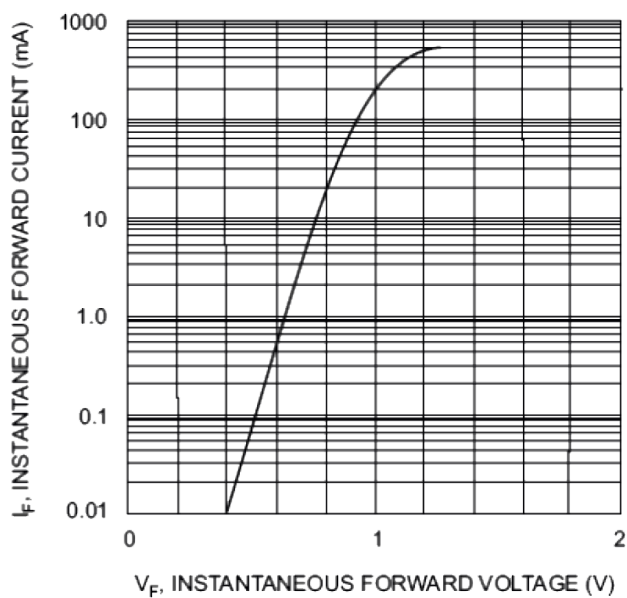


Fig. 1 Forward Characteristics

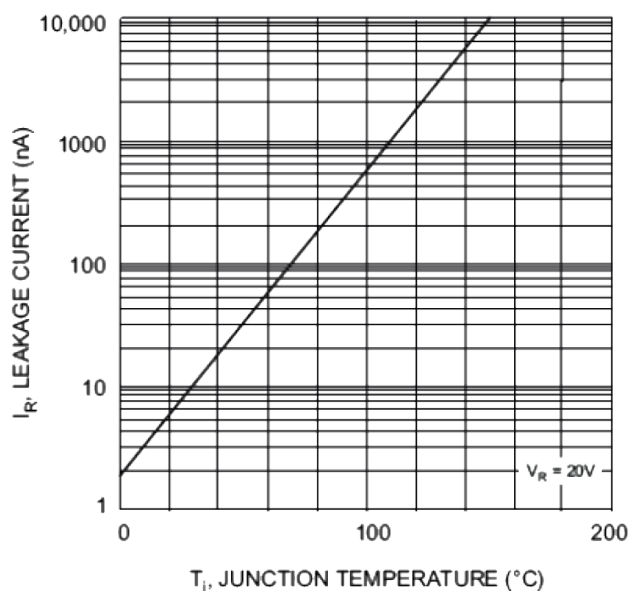


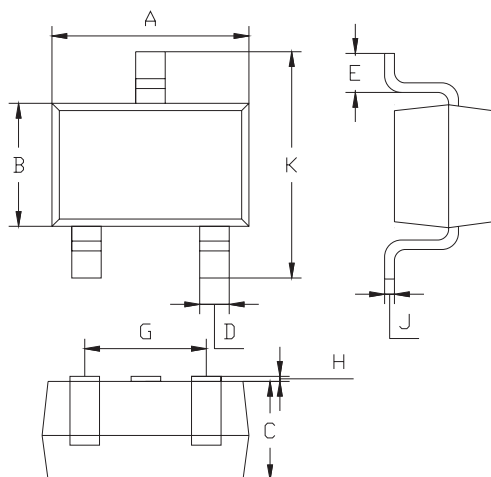
Fig. 2 Leakage Current vs Junction Temperature

# Surface Mount Schottky Barrier Diode

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## Package Outline:

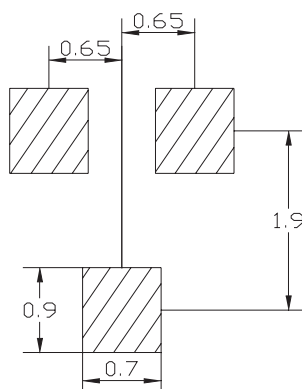
Plastic surface mounted package



| SOT-323 |          |      |
|---------|----------|------|
| Dim.    | Min.     | Max. |
| A       | 1.8      | 2.2  |
| B       | 1.15     | 1.35 |
| C       | 1 Typ.   |      |
| D       | 0.15     | 0.35 |
| E       | 0.25     | 0.4  |
| G       | 1.2      | 1.4  |
| H       | 0.02     | 0.1  |
| J       | 0.1 Typ. |      |
| K       | 2.1      | 2.3  |

Dimensions : Millimetres

## Soldering Footprint:



Dimensions : Millimetres

## Part Number Table

| Description                                               | Part Number   |
|-----------------------------------------------------------|---------------|
| Surface Mount Schottky Barrier Diode, 40V, 200mA, SOT-323 | BAS40W-04-7-F |

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