

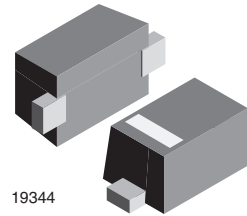
Small Signal Schottky Diode

Features

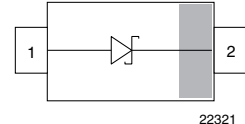
- This diode features very low turn-on voltage and fast switching
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- Space saving SOD-523 package
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT
GREEN
(5-2008)**



19344



22321

Mechanical Data

Case: SOD-523

Weight: approx. 1.4 mg

Molding compound flammability rating:

UL 94 V-0

Terminals: high temperature soldering guaranteed:

260 °C/10 s at terminals

Packaging codes/options:

08/3K per 7" reel (8 mm tape), 15K/box

Parts Table

| Part | Ordering code | Type marking | Remarks |
|---------------|------------------|--------------|---------------|
| BAS40-02V-V-G | BAS40-02V-V-G-08 | .W | Tape and reel |

Absolute Maximum Ratings

T_{amb} = 25 °C, unless otherwise specified

| Parameter | Test condition | Symbol | Value | Unit |
|---------------------------------|----------------|------------------|-------|------|
| Repetitive peak reverse voltage | | V _{RRM} | 40 | V |
| Forward continuous current | | I _F | 120 | mA |
| Surge forward current | | I _{FSM} | 600 | mA |
| Power dissipation | | P _{tot} | 150 | mW |

Thermal Characteristics

T_{amb} = 25 °C, unless otherwise specified

| Parameter | Test condition | Symbol | Value | Unit |
|--|----------------|-------------------|--------------|------|
| Thermal resistance junction to ambient air | | R _{thJA} | 680 | K/W |
| Junction temperature | | T _j | 125 | °C |
| Storage temperature range | | T _{stg} | - 55 to +150 | °C |

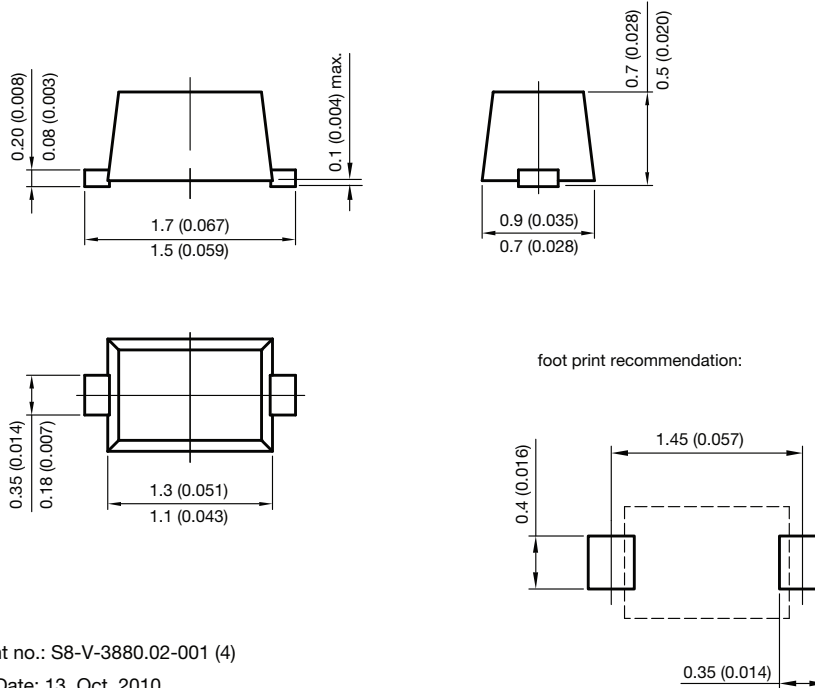
** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

| Parameter | Test condition | Symbol | Min. | Typ. | Max. | Unit |
|---------------------------|---|------------|------|------|------|------|
| Reverse breakdown voltage | $I_R = 10\text{ }\mu\text{A}$ (pulsed) | $V_{(BR)}$ | 40 | | | V |
| Leakage current | Pulse test $V_R = 30\text{ V}$, $t_p < 300\text{ }\mu\text{s}$ | I_R | | 20 | 100 | nA |
| Forward voltage | Pulse test $t_p < 300\text{ }\mu\text{s}$, $I_F = 1\text{ mA}$ | V_F | | | 380 | mV |
| | Pulse test $t_p < 300\text{ }\mu\text{s}$, $I_F = 40\text{ mA}$ | V_F | | | 1000 | mV |
| Diode capacitance | $V_R = 0\text{ V}$, $f = 1\text{ MHz}$ | C_D | | 4 | 5 | pF |
| Reverse recovery time | $I_F = 10\text{ mA}$, $I_R = 10\text{ mA}$, $I_{rr} = 1\text{ mA}$, $R_L = 100\text{ }\Omega$ | t_{rr} | | | 5 | ns |

Package Dimensions in millimeters (inches): SOD-523



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