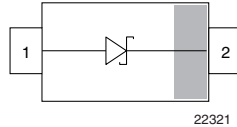


Small Signal Schottky Diode



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

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
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
GREEN
(5-2008)

PARTS TABLE

| PART | ORDERING CODE | INTERNAL CONSTRUCTION | TYPE MARKING | REMARKS |
|---------------|------------------|-----------------------|--------------|---------------|
| BAS40-02V-V-G | BAS40-02V-V-G-08 | Single diode | .W | Tape and reel |

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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 ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

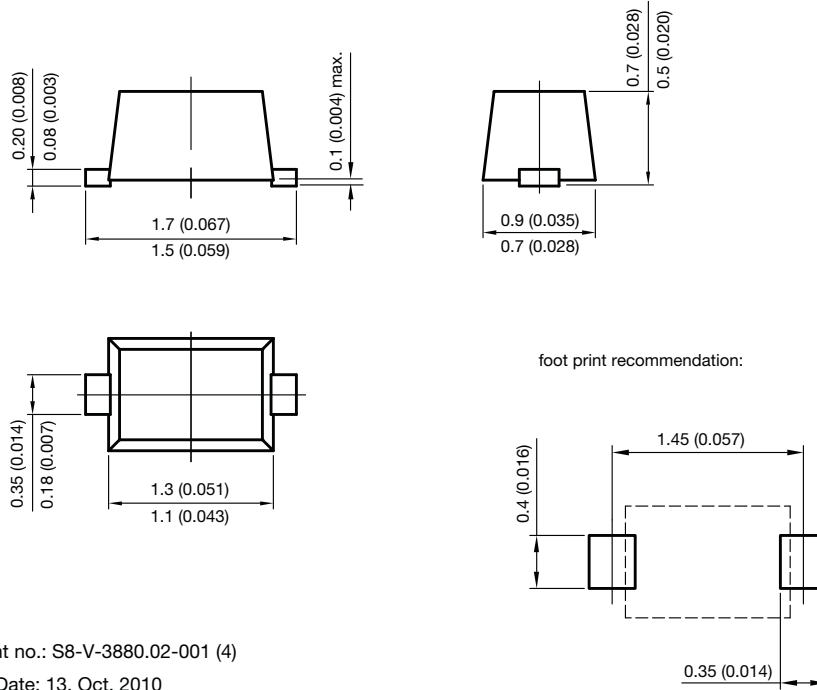
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
|--|----------------|------------|---------------|--------------------|
| Thermal resistance junction to ambient air | | R_{thJA} | 680 | K/W |
| Junction temperature | | T_j | 125 | $^{\circ}\text{C}$ |
| Storage temperature range | | T_{stg} | - 55 to + 150 | $^{\circ}\text{C}$ |

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**



Document no.: S8-V-3880.02-001 (4)

Rev. h - Date: 13. Oct. 2010

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