Small Signal Schottky Diode

Features

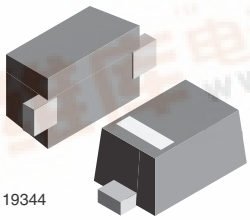
- This diode features very low turn-on voltage and fast switching
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- Space saving SOD-523 package
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

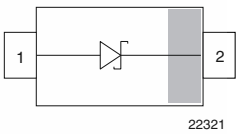
Pb-free

e3

RoHS COMPLIANT

GREEN (5-2008)**





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

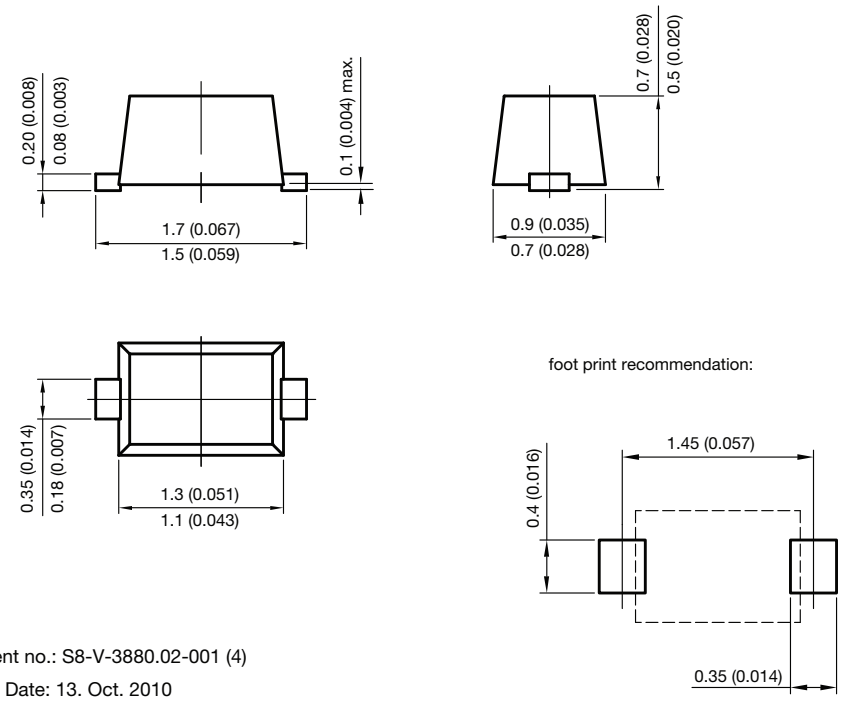
** Please see document “Vishay Material Category Policy”: www.vishay.com/doc?99902

Electrical Characteristics

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

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

Package Dimensions in millimeters (inches): SOD-523



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