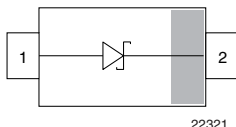


Small Signal Schottky Diode



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



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	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)

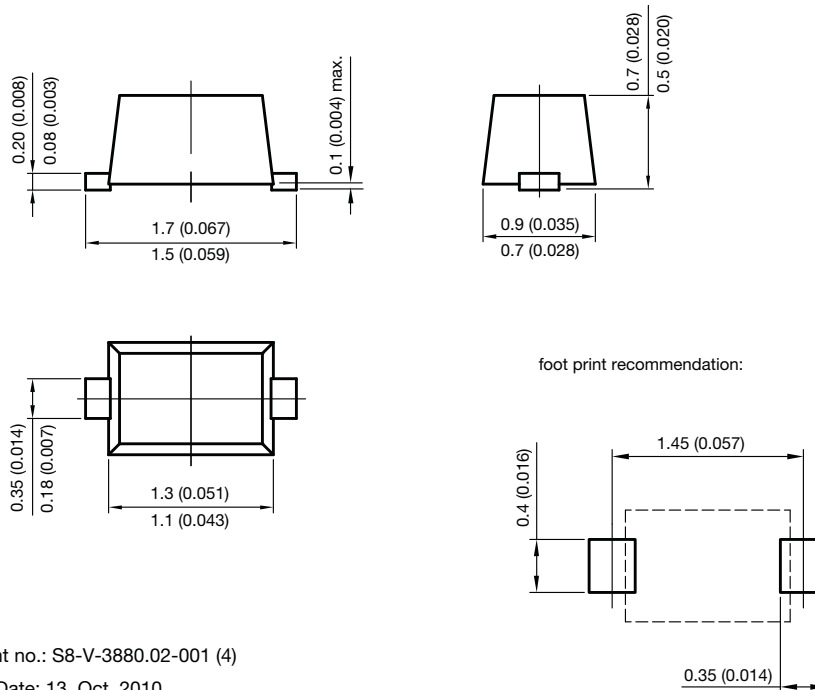
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air		R_{thJA}	680	K/W
Junction temperature		T_j	125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 55 to + 150	$^{\circ}\text{C}$

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	$I_F = 10\text{ mA}$, $I_R = 10\text{ mA}$, $t_{rr} = 1\text{ mA}$, $R_L = 100\text{ }\Omega$	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

16864



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