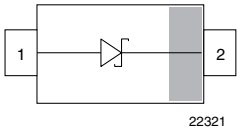
Small Signal Schottky Diode



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

Pb-free

e3

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

DESIGN SUPPORT TOOLS click logo to get started

3D Models Available

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	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAS40-02V-V-G	BAS40-02V-V-G-08	Single	.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		Pt_{ot}	150	mW

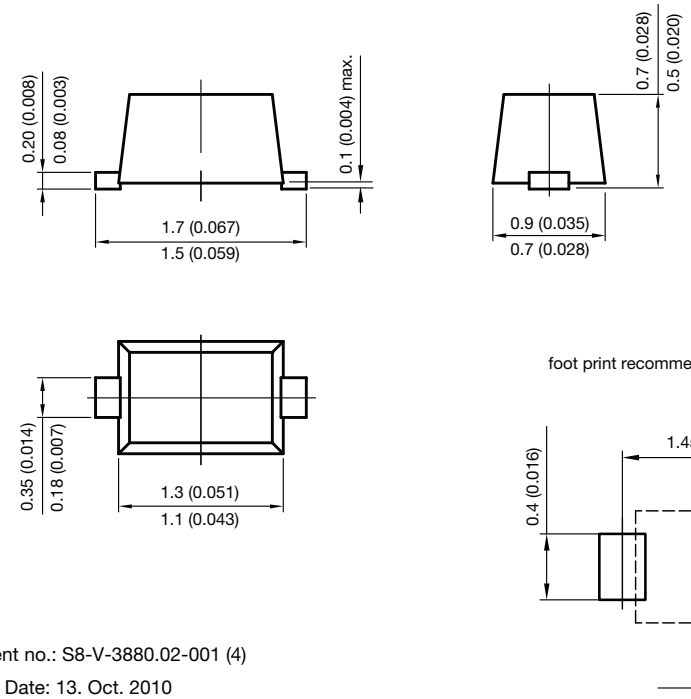
THERMAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

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

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**



foot print recommendation:

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