Small Signal Schottky Diode

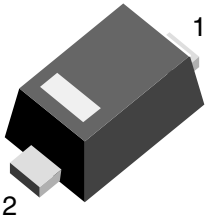
Features

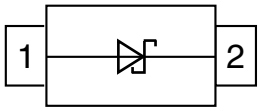
- This diode features very low turn-on voltage and fast switching.
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- Space saving SOD-523 package
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Pb-free

e3

RoHS COMPLIANT





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Mechanical Data

Case: SOD-523

Molding Compound Flammability Rating:
UL 94 V-0

Terminals: High temperature soldering guaranteed:
260 °C/10 s at terminals

Weight: approx. 1.6 mg

Packaging Codes/Options:

GS18 / 10 k per 13" reel (8 mm tape), 10 k/box

GS08 / 3 k per 7" reel (8 mm tape), 15 k/box

Parts Table

Part	Ordering code	Marking	Remarks
BAS520-02V	BAS520-02V-GS18 or BAS520-02V-GS08	T	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}	30	V
Forward continuous current		I_F	200	mA
Power dissipation		P_{tot}	200	mW

Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Junction soldering point		R_{thJS}	100	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 = 1 µA (pulsed)	$V_{(BR)}$	30			V
Leakage current	Pulse test V_R = 30 V, t_p < 300 µs	I_R		0.5	1	µA
Forward voltage	Pulse test t_p < 300 µs, I_F = 1.0 mA	V_F			320	mV
	Pulse test t_p < 300 µs, I_F = 200 mA,	V_F			600	mV
Diode capacitance	V_R = 0 V, f = 1 MHz	C_D		25	30	pF
Reverse recovery time	I_F = 10 mA, I_R = 10 mA, I_{rr} = 1 mA, R_L = 100 Ω	t_{rr}		10		ns

Typical Characteristics

T_{amb} = 25 °C unless otherwise specified

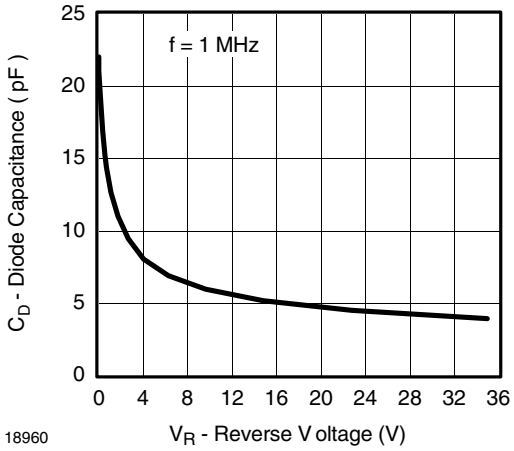


Figure 1. Typical Capacitance vs. Reverse Voltage

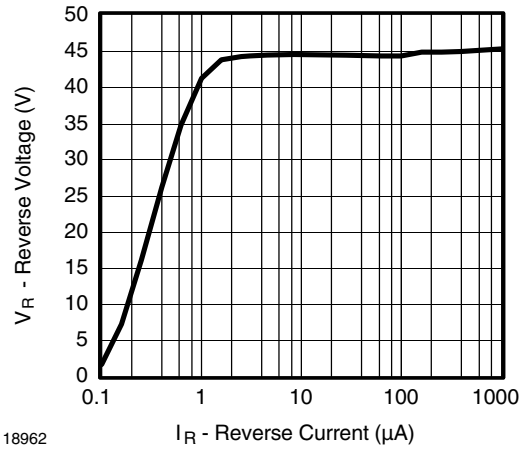


Figure 3. Typical Reverse Voltage vs. Reverse Current

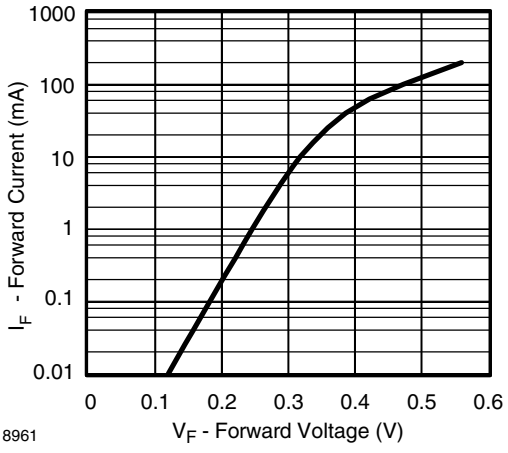
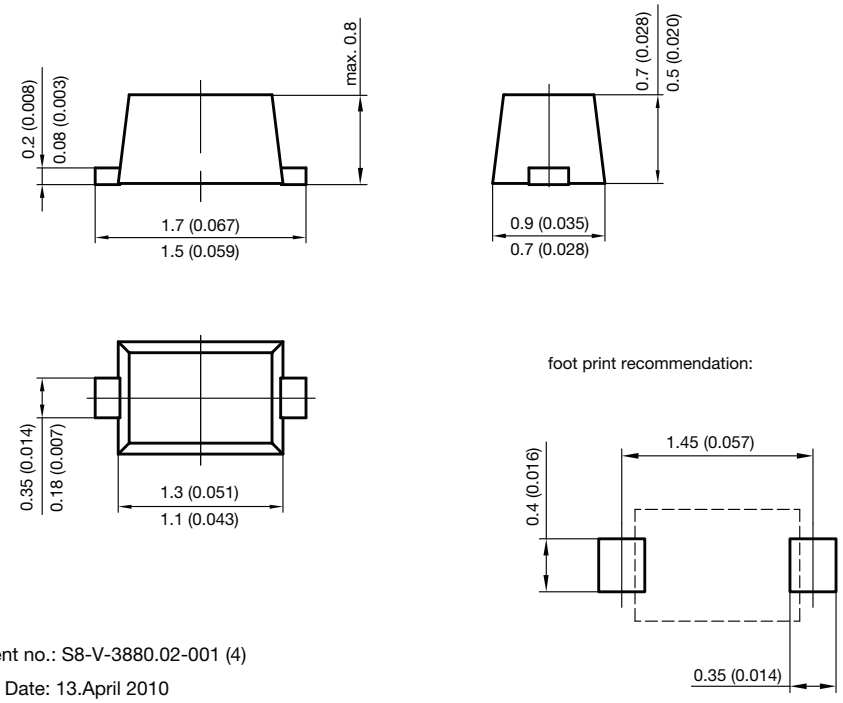


Figure 2. Forward Current vs. Forward Voltage

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

Package Dimensions in millimeters (inches): **SOD-523**



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

Rev. g - Date: 13.April 2010

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