

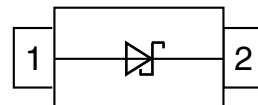
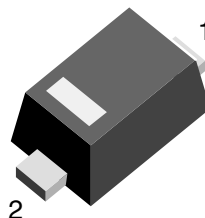
Small Signal Schottky Diode

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



RoHS
COMPLIANT



19020

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

$T_{amb} = 25\text{ °C}$, 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

$T_{amb} = 25\text{ °C}$, 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

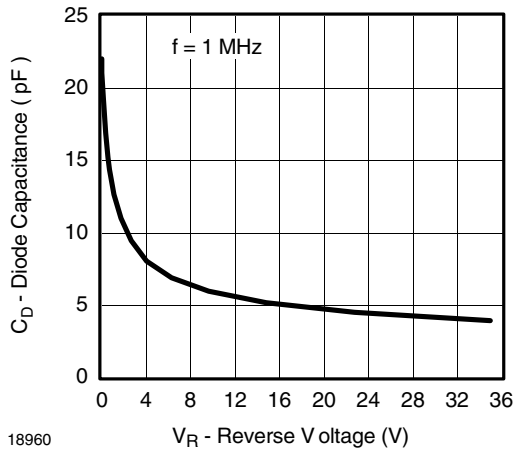
Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	$I_R = 1\text{ }\mu\text{A}$ (pulsed)	$V_{(BR)}$	30			V
Leakage current	Pulse test $V_R = 30\text{ V}$, $t_p < 300\text{ }\mu\text{s}$	I_R		0.5	1	μA
Forward voltage	Pulse test $t_p < 300\text{ }\mu\text{s}$, $I_F = 1.0\text{ mA}$	V_F			320	mV
	Pulse test $t_p < 300\text{ }\mu\text{s}$, $I_F = 200\text{ mA}$,	V_F			600	mV
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_D		25	30	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}		10		ns

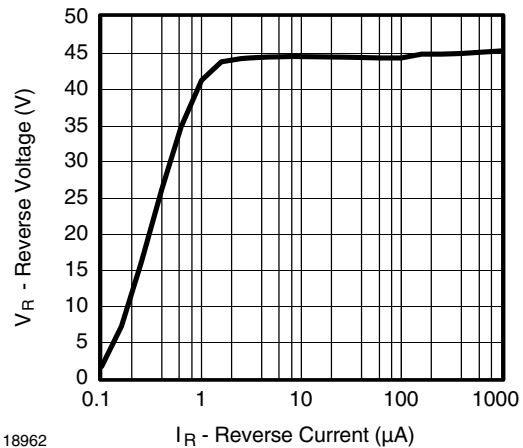
Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified



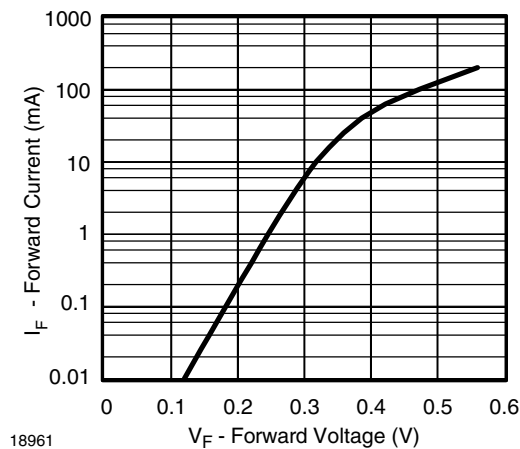
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Figure 1. Typical Capacitance vs. Reverse Voltage



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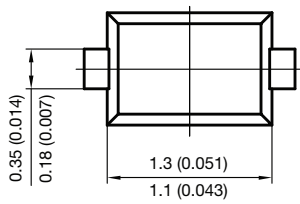
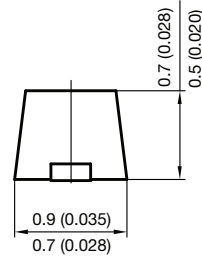
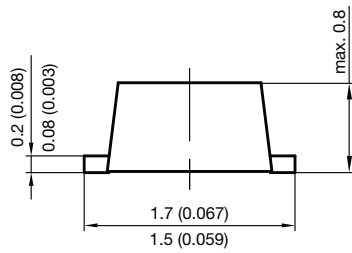
Figure 3. Typical Reverse Voltage vs. Reverse Current



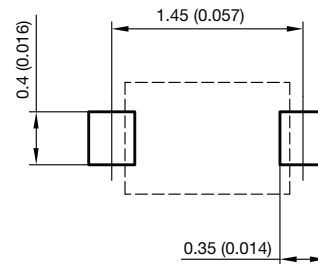
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Figure 2. Forward Current vs. Forward Voltage

Package Dimensions in millimeters (inches): SOD-523



foot print recommendation:



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