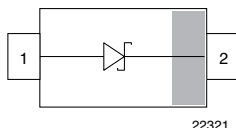
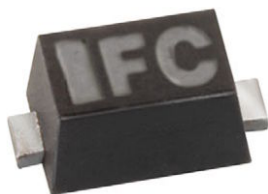


## Small Signal Schottky Diode



### LINKS TO ADDITIONAL RESOURCES



### 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), 3K/box

### 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
- AEC-Q101 qualified available
- Space saving SOD-523 package
- Base P/N-G3 - RoHS-compliant, commercial grade
- Base P/N-HG3 - RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



### PARTS TABLE

PART	ORDERING CODE	AEC-Q101 QUALIFIED	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAS40-02V	BAS40-02V-G3-08	no	Single	.W	Tape and reel
	BAS40-02V-HG3-08	yes			

### ABSOLUTE MAXIMUM RATINGS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V <sub>RRM</sub>	40	V
Forward continuous current		I <sub>F</sub>	120	mA
Surge forward current	t <sub>p</sub> = 10 ms square wave, T <sub>j</sub> = 25 °C prior to surge	I <sub>FSM</sub>	600	mA
Power dissipation	on FR-4 board with recommended soldering footprint	P <sub>tot</sub>	150	mW

### THERMAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

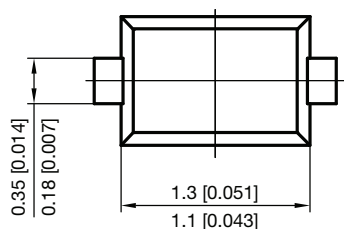
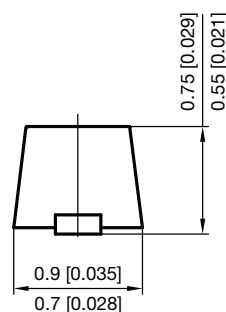
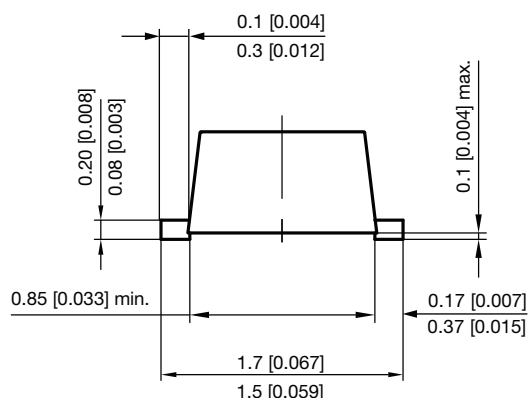
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	on FR-4 board according to JEDEC® 51-3 with recommended soldering footprint	R <sub>thJA</sub>	680	K/W
Thermal resistance junction to lead		R <sub>thJL</sub>	480	K/W
Junction temperature		T <sub>j</sub>	125	°C
Operating temperature range		T <sub>op</sub>	-55 to +125	°C
Storage temperature range		T <sub>stg</sub>	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

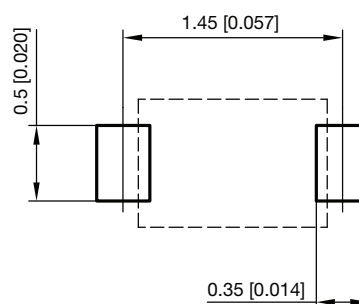
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	I <sub>R</sub> = 10 µA (pulsed)	V <sub>(BR)</sub>	40			V
Leakage current	Pulse test V <sub>R</sub> = 30 V, t <sub>p</sub> < 300 µs	I <sub>R</sub>		20	100	nA
Forward voltage	Pulse test t <sub>p</sub> < 300 µs, I <sub>F</sub> = 1 mA	V <sub>F</sub>			380	mV
	Pulse test t <sub>p</sub> < 300 µs, I <sub>F</sub> = 40 mA	V <sub>F</sub>			1000	mV
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>		4	5	pF
Reverse recovery time	I <sub>F</sub> = 10 mA, I <sub>R</sub> = 10 mA, I <sub>rr</sub> = 1 mA, R <sub>L</sub> = 100 Ω	t <sub>rr</sub>			5	ns



**PACKAGE DIMENSIONS** in millimeters [inches]: **SOD-523**



Footprint recommendation:



Document no.: S8-V-3880.02-003 (4)

Created - Date: 04. April 2017

Rev. 4 - Date: 03. Aug. 2020

23093

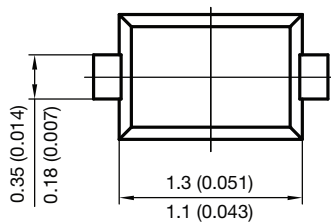
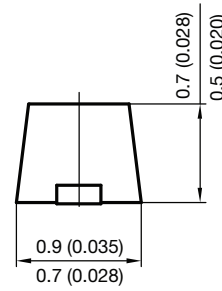
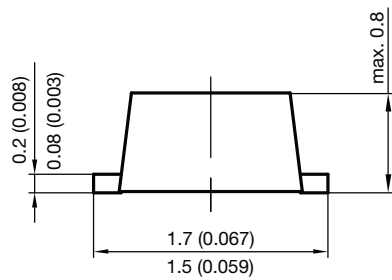
# SOD-523

Vishay Semiconductors

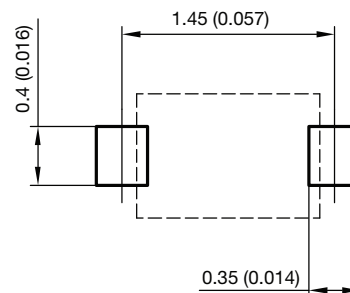
SOD-523



## PACKAGE DIMENSIONS in millimeters (inches)



foot print recommendation:



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

Rev. g - Date: 13.April 2010

16864



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