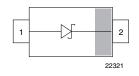


## Vishay Semiconductors

# **Small Signal Schottky Diode**





#### **LINKS TO ADDITIONAL RESOURCES**



#### **MECHANICAL DATA**

Case: SOD-523

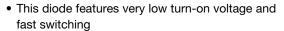
Weight: approx. 1.4 mg

Molding compound flammability rating: UL 94 V-0 **Terminals:** high temperature soldering guaranteed:

260 °C/10 s at terminals Packaging codes / options: 08/8K per 7" reel (8 mm tape)

#### **FEATURES**

qualified





- AEC-Q101 qualified available
- Space saving SOD-523 package
- HALOGEN **FREE**
- Base P/N-G3 RoHS-compliant, commercial grade
- Base P/N-HG3 RoHS-compliant, AEC-Q101 **GREEN**
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

PARTS TABLE						
PART	ORDERING CODE	AEC-Q101 QUALIFIED	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
BAS581-02V	BAS581-02V-G3-08	no	Single	.7	Tape and real	
	BAS581-02V-HG3-08	yes	Single	:Z	Tape and reel	

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Repetitive peak reserve voltage = working peak reserve voltage		V <sub>RRM</sub>	40	V	
Forward continuous current		I <sub>F</sub>	30	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>	200	mA	
Power dissipation	on FR-4 board with recommended soldering footprint	Pt <sub>ot</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		Tj	125	°C		
Operating temperature range		T <sub>op</sub>	-55 to +125	°C		
Storage temperature range		T <sub>stg</sub>	-55 to +150	°C		

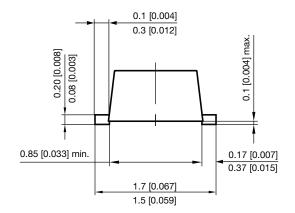
<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reserve breakdown voltage	I <sub>R</sub> = 100 μA	V <sub>(BR)</sub>	40			V
Leakage current	V <sub>R</sub> = 30 V	I <sub>R</sub>			0.5	μΑ
Forward voltage	I <sub>F</sub> = 1 mA	V <sub>F</sub>			370	mV
Diode capacitance	$V_R = 1 V, f = 1 MHz$	C <sub>D</sub>			2	pF

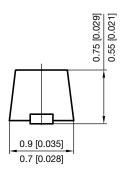


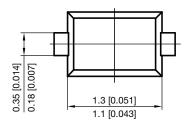
www.vishay.com

# Vishay Semiconductors

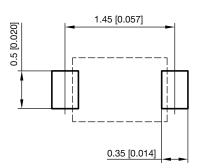
### PACKAGE DIMENSIONS in millimeters [inches]: SOD-523







Footprint recommendation:



Document no.: S8-V-3880.02-003 (4) Created - Date: 04. April 2017 Rev. 4 - Date: 03. Aug. 2020

23093



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