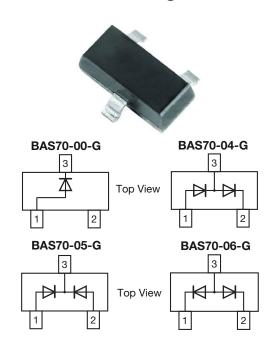


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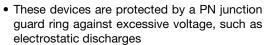
## Vishay Semiconductors

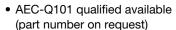
# Small Signal Schottky Diodes, Single and Dual



#### **FEATURES**

 These diodes feature very low turn-on voltage and fast switching





• Base P/N-G3 - green, commercial grade

 Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





ROHS
COMPLIANT
HALOGEN
FREE

**GREEN** (5-2008)

### **MECHANICAL DATA**

Case: SOT-23

Weight: approx. 8.1 mg
Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box 08/3K per 7" reel (8 mm tape), 15K/box

### **DESIGN SUPPORT TOOLS** click logo to get started



PARTS TABLE					
PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
BAS70-00-G	BAS70-00-G3-08 or BAS70-00-G3-18	Single	73G	Tape and reel	
BAS70-04-G	BAS70-04-G3-08 or BAS70-04-G3-18	Dual serial	74G	Tape and reel	
BAS70-05-G	BAS70-05-G3-08 or BAS70-05-G3-18	Common cathode	75G	Tape and reel	
BAS70-06-G	BAS70-06-G3-08 or BAS70-06-G3-18	Common anode	76G	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 reverse voltage		$V_{RRM} = V_{RRM} = V_{R}$	70	V	
Forward continuous current (1)		I <sub>F</sub>	200	mA	
Surge forward current (1)	t <sub>p</sub> < 1 s	I <sub>FSM</sub>	600	mA	
Power dissipation (1)		P <sub>tot</sub>	200	mW	

#### Note

<sup>(1)</sup> Device on fiberglass substrate, see layout on next page

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Thermal resistance junction to ambient air (1)		R <sub>thJA</sub>	500	K/W	
Junction temperature		T <sub>j</sub>	125	°C	
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C	
Operating temperature range		Top	-55 to +125	°C	

#### Note

<sup>(1)</sup> Device on fiberglass substrate, see layout on next page



#### www.vishay.com

# Vishay Semiconductors

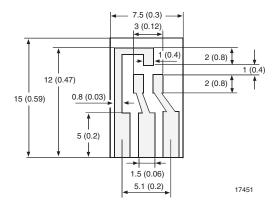
<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reserve breakdown voltage	$I_R = 10 \mu A \text{ (pulsed)}$	V <sub>(BR)</sub>	70			V
Leakage current	V <sub>R</sub> = 50 V	I <sub>R</sub>		20	100	nA
Forward voltage	I <sub>F</sub> = 1.0 mA	V <sub>F</sub>			410	mV
Forward voltage (1)	I <sub>F</sub> = 15 mA	V <sub>F</sub>			1000	mV
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>		1.5	2	pF
Reserve recovery time	$I_F = I_R = 10 \text{ mA}, i_R = 1 \text{ mA},$ $R_L = 100 \Omega$	t <sub>rr</sub>			5	ns

#### Note

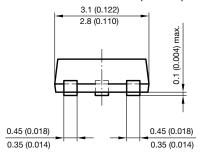
### LAYOUT FOR $R_{thJA}$ TEST

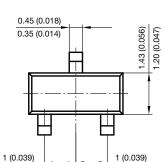
Thickness:

Fiberglass 1.5 mm (0.059") Copper leads 0.3 mm (0.012")



### PACKAGE DIMENSIONS in millimeters (inches): SOT-23

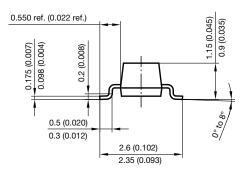


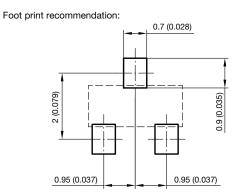


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Document no.: 6.541-5014.01-4 Rev. 8 - Date: 23.Sept.2009

0.9 (0.035)





<sup>&</sup>lt;sup>(1)</sup> Pulse test;  $t_p \le 300 \ \mu s$ 



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