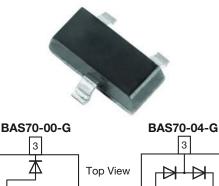
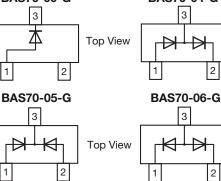
# BAS70-00-G to BAS70-06-G

**Vishay Semiconductors** 

# Small Signal Schottky Diodes, Single and Dual



www.vishay.com



## **FEATURES**

- These diodes feature very low turn-on voltage and fast switching
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- AEC-Q101 qualified
- Base P/N-G3 green, commercial grade
- <u>(5-2008)</u> • Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

### **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

PARTS TABLE					
PART	ORDERING CODE	INTERNAL CONSTRUCTION	TYPE MARKING	REMARKS	
BAS70-00-G	BAS70-00-G3-08 or BAS70-00-G3-18	Single diode	73G	Tape and reel	
BAS70-04-G	BAS70-04-G3-08 or BAS70-04-G3-18	Dual diodes serial	74G	Tape and reel	
BAS70-05-G	BAS70-05-G3-08 or BAS70-05-G3-18	Dual diodes common cathode	75G	Tape and reel	
BAS70-06-G	BAS70-06-G3-08 or BAS70-06-G3-18	Dual diodes 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 <sup>(1)</sup>		l <sub>F</sub>	200	mA	
Surge forward current <sup>(1)</sup>	t <sub>p</sub> < 1 s	I <sub>FSM</sub>	600	mA	
Power dissipation <sup>(1)</sup>		P <sub>tot</sub>	200	mW	

### Note

1

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

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

### Note

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

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RoHS

COMPLIANT GREEN



# BAS70-00-G to BAS70-06-G



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## **Vishay Semiconductors**

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb}$ = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reserve beakdown voltage	$I_R = 10 \ \mu A$ (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 <sup>(1)</sup>	I <sub>F</sub> = 15 mA	V <sub>F</sub>			1000	mV
Diode capacitance	$V_R = 0 V$ , f = 1 MHz	CD		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

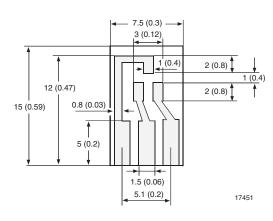
#### Note

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

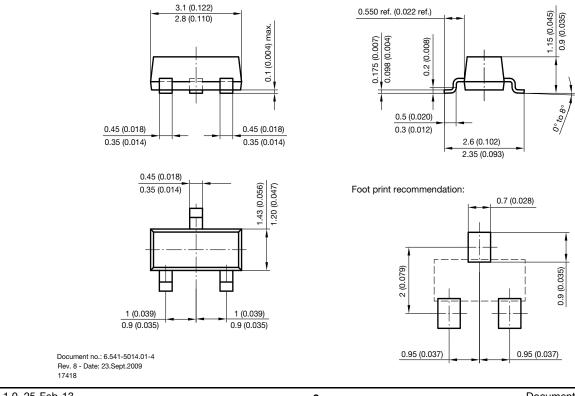
## LAYOUT FOR R<sub>thJA</sub> TEST

### 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 Number: 85157

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