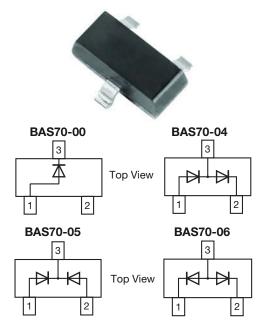


Vishay Semiconductors

Small Signal Schottky Diodes, Single and Dual



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-E3 RoHS-compliant, commercial grade
- Base P/N-HE3 RoHS-compliant, AEC-Q101 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.8 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	BAS70-00-E3-08 or BAS70-00-E3-18	Single diode	73		
	BAS70-00-HE3-08 or BAS70-00-HE3-18	Sirigle diode	73	· Tape and reel	
BAS70-04	BAS70-04-E3-08 or BAS70-04-E3-18	Dual diodes serial	74		
	BAS70-04-HE3-08 or BAS70-04-HE3-18	Duai diodes seriai	74		
BAS70-05	BAS70-05-E3-08 or BAS70-05-E3-18	Dual diodes common cathode	75		
	BAS70-05-HE3-08 or BAS70-05-HE3-18	Dual diodes confinion cathode	75		
BAS70-06	BAS70-06-E3-08 or BAS70-06-E3-18	Dual diodes common anode	76		
	BAS70-06-HE3-08 or BAS70-06-HE3-18	Duai diodes common anode	70		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 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)		l _F	200	mA	
Surge forward current (1)	t _p < 1 s	I _{FSM}	600	mA	
Power dissipation (1)		P _{tot}	200	mW	

Note

⁽¹⁾ Device on fiberglass substrate, see layout on next page.

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

Note

⁽¹⁾ Device on fiberglass substrate, see layout on next page.



www.vishay.com

Vishay Semiconductors

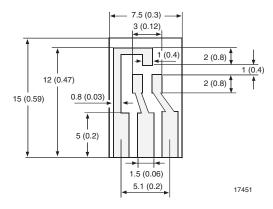
ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reserve beakdown voltage	I _R = 10 μA (pulsed)	V _(BR)	70			V
Leakage current	V _R = 50 V	I _R		20	100	nA
Forward voltage	I _F = 1.0 mA	V _F			410	mV
Forward voltage (1)	I _F = 15 mA	V _F			1000	mV
Diode capacitance	$V_R = 0 V, f = 1 MHz$	C _D		1.5	2	pF
Reserve recovery time	$I_F = I_R = 10$ mA, $i_R = 1$ mA, $R_L = 100$ Ω	t _{rr}			5	ns

Note

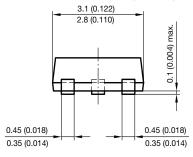
LAYOUT FOR R_{thJA} TEST

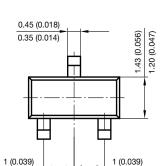
Thickness:

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



PACKAGE DIMENSIONS in millimeters (inches): SOT-23

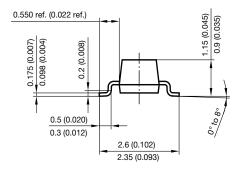


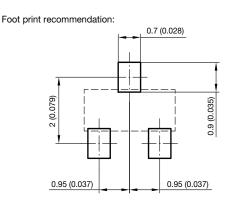


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Document no.: 6.541-5014.01-4 Rev. 8 - Date: 23.Sept.2009 17418

0.9 (0.035)





 $^{^{(1)}~}$ Pulse test; $t_p \leq 300~\mu s$



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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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