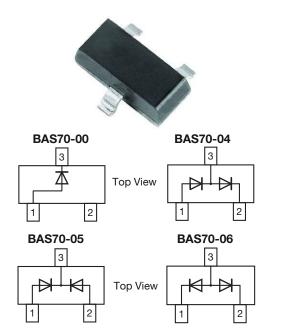


Vishay Semiconductors

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



ROHS

- AEC-Q101 qualified available
- 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

DESIGN SUPPORT TOOLS click logo to get started



PARTS TABLE					
PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
BAS70-00	BAS70-00-E3-08 or BAS70-00-E3-18	Cinalo	70		
	BAS70-00-HE3-08 or BAS70-00-HE3-18	Single	73	Tape and reel	
BAS70-04	BAS70-04-E3-08 or BAS70-04-E3-18	Dual serial	74		
	BAS70-04-HE3-08 or BAS70-04-HE3-18	Duai seriai	74		
BAS70-05	BAS70-05-E3-08 or BAS70-05-E3-18	Common cathode	75		
	BAS70-05-HE3-08 or BAS70-05-HE3-18	Common camode	75	1	
BAS70-06	BAS70-06-E3-08 or BAS70-06-E3-18	Common anode	76		
	BAS70-06-HE3-08 or BAS70-06-HE3-18	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)		I _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		Tj	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

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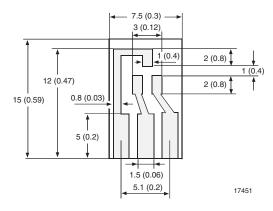
ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reserve beakdown voltage	I _R = 10 μA (pulsed)	V _(BR)	70			V
Leakage current	V _R = 50 V	I _R		20	100	nA
Forward voltage	I _F = 1.0 mA	V _F			410	mV
Forward voltage (1)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

Note

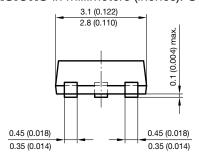
LAYOUT FOR R_{thJA} TEST

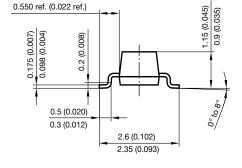
Thickness:

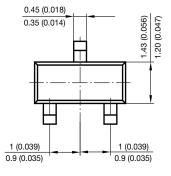
Fiberglass 1.5 mm (0.059") Copper leads 0.3 mm (0.012")

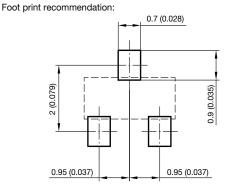


PACKAGE DIMENSIONS in millimeters (inches): SOT-23









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⁽¹⁾ Pulse test; $t_p \le 300 \mu s$



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