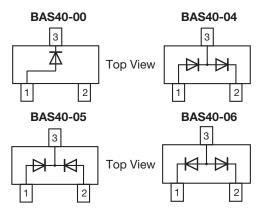


Vishay Semiconductors

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 guardring against excessive voltage, such as electrostatic discharges



AEC-Q101 qualified

RoHS

- 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	
BAS40-00	BAS40-00-E3-08 or BAS40-00-E3-18	Single diede	43	· Tape and reel	
	BAS40-00-HE3-08 or BAS40-00-HE3-18	Single diode			
BAS40-04	BAS40-04-E3-08 or BAS40-04-E3-18	Dual diodes serial	44		
	BAS40-04-HE3-08 or BAS40-04-HE3-18	Dual diodes serial			
BAS40-05	BAS40-05-E3-08 or BAS40-05-E3-18	Dual diodes common cathode	45		
	BAS40-05-HE3-08 or BAS40-05-HE3-18	Dual diodes confinion cathode	45		
BAS40-06	BAS40-06-E3-08 or BAS40-06-E3-18	Dual diodes common anode	46		
	BAS40-06-HE3-08 or BAS40-06-HE3-18	Dual Glodes Collillon allode			

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Repetitive peak reverse voltage		$V_{RRM} = V_{RWM} = V_{R}$	40	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.



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Reverse breakdown voltage	I _R = 10 μA (pulsed)	V _(BR)	40			V	
Leakage current	V _R = 30 V	I _R		20	100	nA	
Forward voltage	I _F = 1 mA	V_{F}			380	mV	
Forward voltage (1)	$I_F = 40 \text{ mA}$	V_{F}			1000	mV	
Diode capacitance	V _R = 0 V, f = 1 MHz	C _D		4	5	pF	
Reverse recovery time	$I_F = I_R = 10 \text{ mA}, i_R = 1 \text{ mA}, R_L = 100 \Omega$	t _{rr}			5	ns	

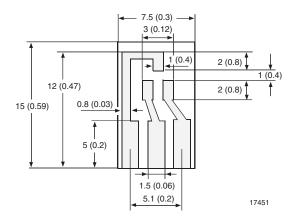
Note

⁽¹⁾ Pulse test $t_p < 300 \mu s$

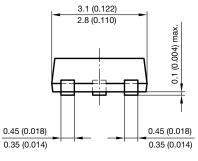
LAYOUT FOR R_{thJA} TEST

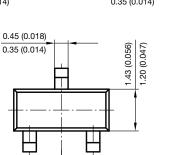
Thickness:

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



PACKAGE DIMENSIONS in millimeters (inches): SOT-23





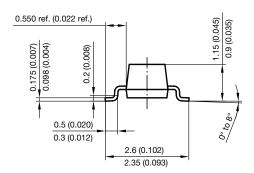
1 (0.039)

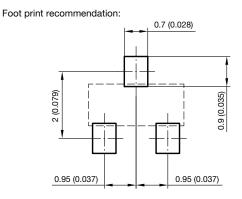
0.9 (0.035)

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

1 (0.039)

0.9 (0.035)







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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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