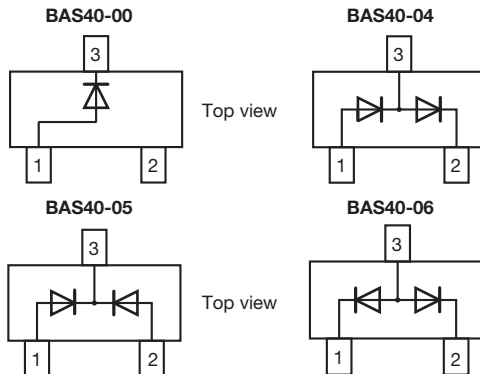


Small Signal Schottky Diodes, Single and Dual



FEATURES

- These diodes feature very low turn-on voltage and fast switching
- These devices are protected by a PN junction guarding against excessive voltage, such as electrostatic discharges
- 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


RoHS
COMPLIANT

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
BAS40-00	BAS40-00-E3-08 or BAS40-00-E3-18	Single	43	Tape and reel
	BAS40-00-HE3-08 or BAS40-00-HE3-18			
BAS40-04	BAS40-04-E3-08 or BAS40-04-E3-18	Dual serial	44	
	BAS40-04-HE3-08 or BAS40-04-HE3-18			
BAS40-05	BAS40-05-E3-08 or BAS40-05-E3-18	Common cathode	45	
	BAS40-05-HE3-08 or BAS40-05-HE3-18			
BAS40-06	BAS40-06-E3-08 or BAS40-06-E3-18	Common anode	46	
	BAS40-06-HE3-08 or BAS40-06-HE3-18			

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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⁾	$t_p < 1\text{ s}$	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

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 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 mA, i _R = 1 mA, R _L = 100 Ω	t _{rr}			5	ns

Note

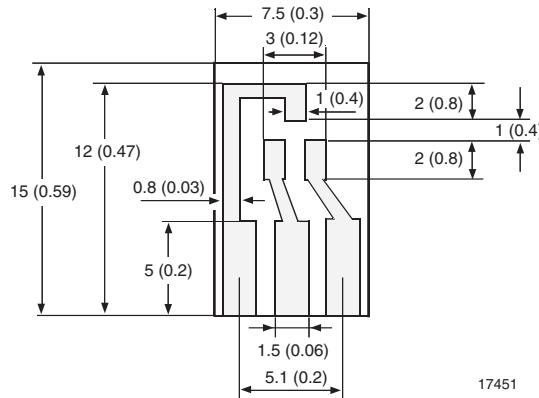
⁽¹⁾ Pulse test t_p < 300 μs

LAYOUT FOR R_{thJA} TEST

Thickness:

Fiberglass 1.5 mm (0.059 inches)

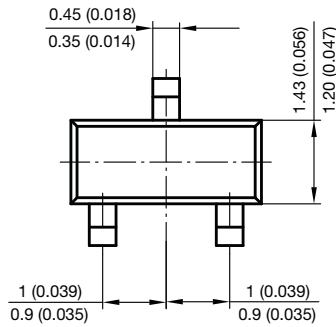
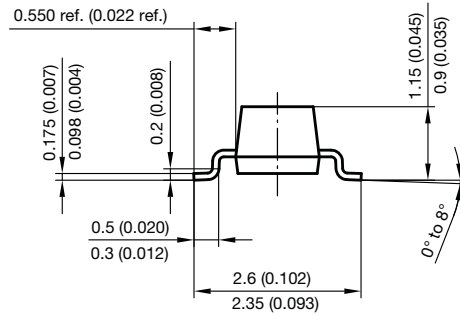
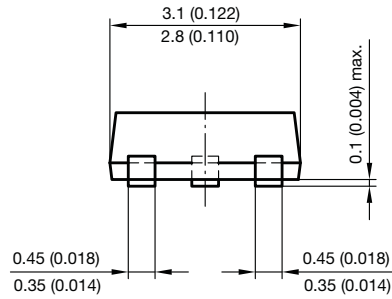
Copper leads 0.3 mm (0.012 inches)



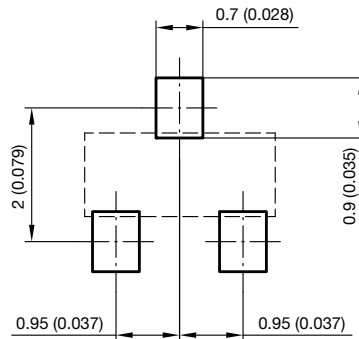
17451



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



Foot print recommendation:



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



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