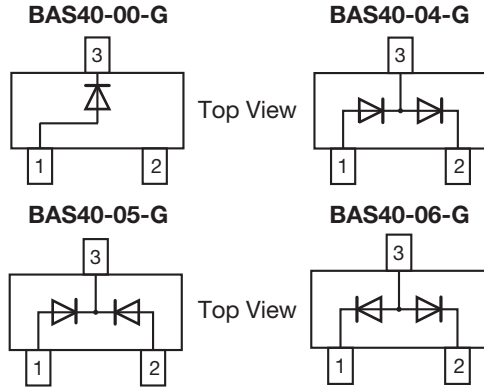




Small Signal Schottky Diodes, Single and Dual



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 (part number on request)
- Base P/N-G3 - green, commercial grade
- 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

DESIGN SUPPORT TOOLS click logo to get started



PARTS TABLE				
PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAS40-00-G	BAS40-00-G3-08 or BAS40-00-G3-18	Single	43G	Tape and reel
BAS40-04-G	BAS40-04-G3-08 or BAS40-04-G3-18	Dual serial	44G	
BAS40-05-G	BAS40-05-G3-08 or BAS40-05-G3-18	Common cathode	45G	
BAS40-06-G	BAS40-06-G3-08 or BAS40-06-G3-18	Common anode	46G	

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		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 ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R = 10\text{ }\mu\text{A}$ (pulsed)	$V_{(BR)}$	40			V
Leakage current	$V_R = 30\text{ V}$	I_R		20	100	nA
Forward voltage	$I_F = 1\text{ mA}$	V_F			380	mV
Forward voltage ⁽¹⁾	$I_F = 40\text{ mA}$	V_F			1000	mV
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_D		4	5	pF
Reverse recovery time	$I_F = I_R = 10\text{ mA}$, $i_R = 1\text{ mA}$, $R_L = 100\text{ }\Omega$	t_{rr}			5	ns

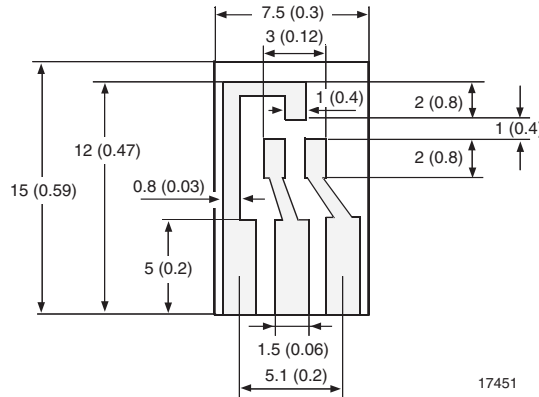
Note

 (1) Pulse test $t_p < 300\text{ }\mu\text{s}$
LAYOUT FOR R_{thJA} TEST

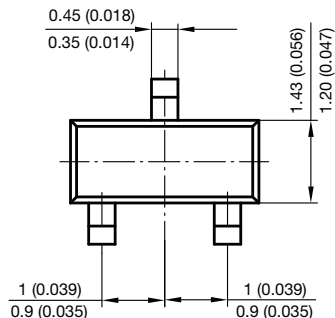
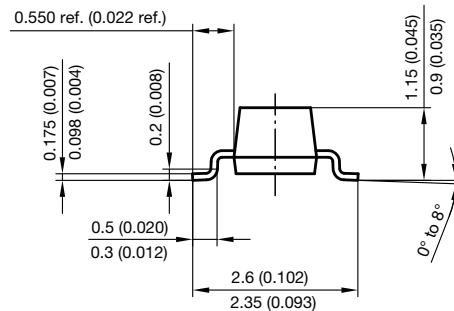
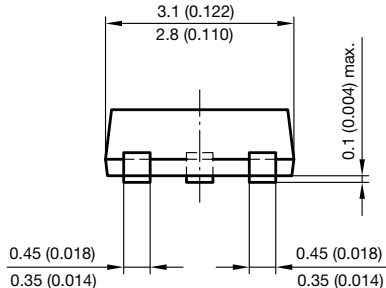
Thickness:

Fiberglass 1.5 mm (0.059 inches)

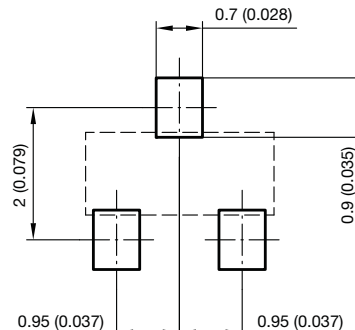
Copper leads 0.3 mm (0.012 inches)



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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