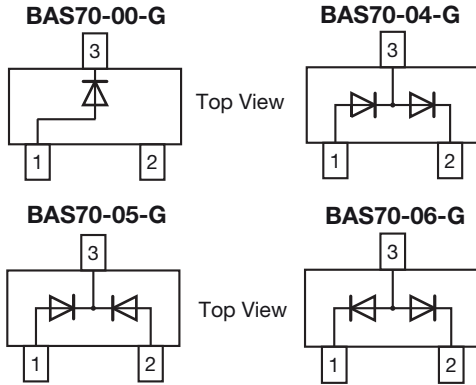


Small Signal Schottky Diodes, Single and Dual



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 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
BAS70-00-G	BAS70-00-G3-08 or BAS70-00-G3-18	Single	73G	Tape and reel
BAS70-04-G	BAS70-04-G3-08 or BAS70-04-G3-18	Dual serial	74G	Tape and reel
BAS70-05-G	BAS70-05-G3-08 or BAS70-05-G3-18	Common cathode	75G	Tape and reel
BAS70-06-G	BAS70-06-G3-08 or BAS70-06-G3-18	Common anode	76G	Tape and reel

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		$V_{RRM} = V_{RRM} = V_R$	70	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 ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-65 to +150	$^{\circ}\text{C}$
Operating temperature range		T_{op}	-55 to +125	$^{\circ}\text{C}$

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)	$V_{(BR)}$	70			V
Leakage current	$V_R = 50\text{ V}$	I_R		20	100	nA
Forward voltage	$I_F = 1.0\text{ mA}$	V_F			410	mV
Forward voltage ⁽¹⁾	$I_F = 15\text{ mA}$	V_F			1000	mV
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_D		1.5	2	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

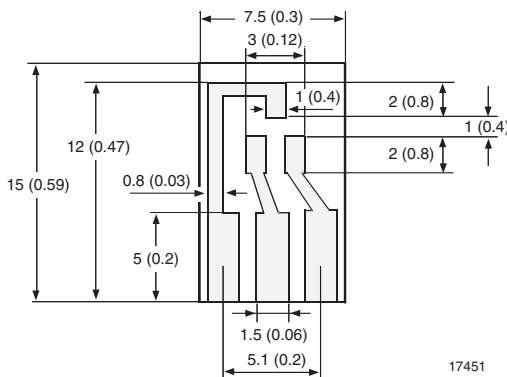
⁽¹⁾ Pulse test; $t_p \leq 300\text{ }\mu\text{s}$

LAYOUT FOR R_{thJA} TEST

Thickness:

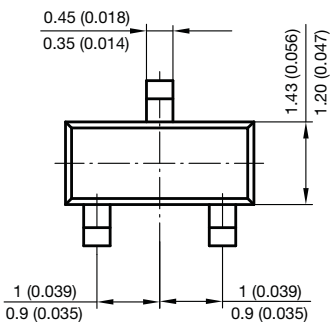
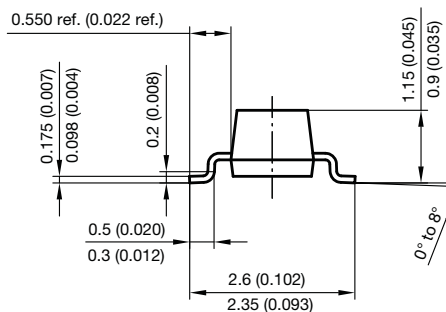
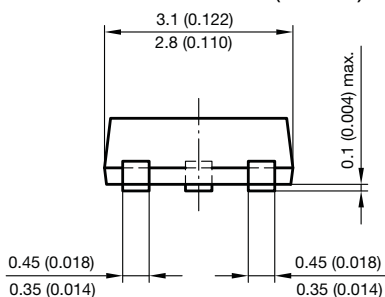
Fiberglass 1.5 mm (0.059")

Copper leads 0.3 mm (0.012")

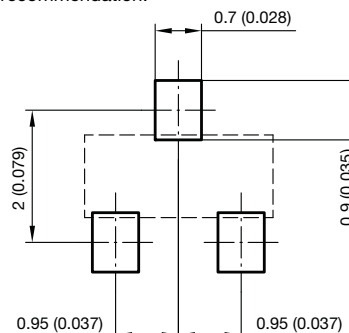


17451

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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