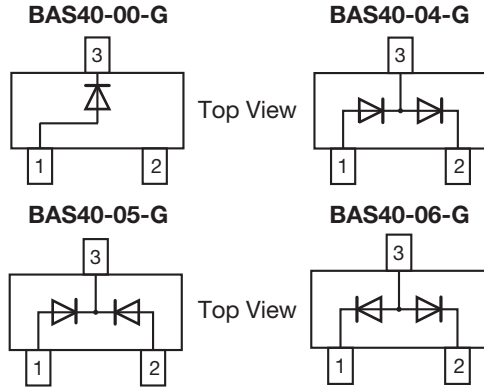




## Small Signal Schottky Diodes, Single and Dual



### 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](http://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 <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V <sub>RRM</sub> = V <sub>RWM</sub> = V <sub>R</sub>	40	V
Forward continuous current <sup>(1)</sup>		I <sub>F</sub>	200	mA
Surge forward current <sup>(1)</sup>	t <sub>p</sub> < 1 s	I <sub>FSM</sub>	600	mA
Power dissipation <sup>(1)</sup>		P <sub>tot</sub>	200	mW

#### Note

<sup>(1)</sup> Device on fiberglass substrate, see layout on next page

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air <sup>(1)</sup>		R <sub>thJA</sub>	500	K/W
Junction temperature		T <sub>j</sub>	125	°C
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C
Operating temperature range		T <sub>op</sub>	-55 to +125	°C

#### Note

<sup>(1)</sup> Device on fiberglass substrate, see layout on next page

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , 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 <sup>(1)</sup>	$I_F = 40\text{ mA}$	$V_F$			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**

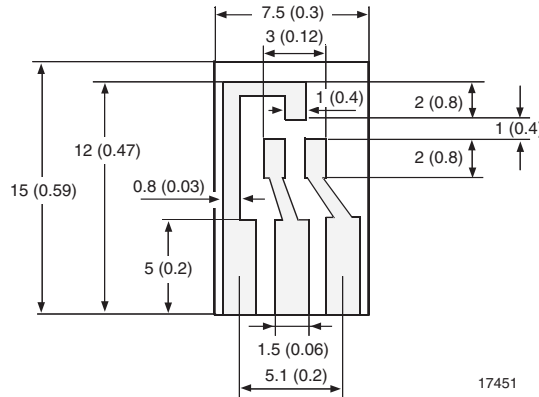
(1) Pulse test  $t_p < 300\text{ }\mu\text{s}$

**LAYOUT FOR  $R_{thJA}$  TEST**

Thickness:

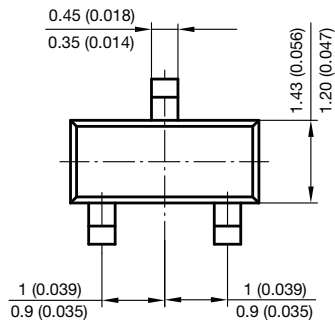
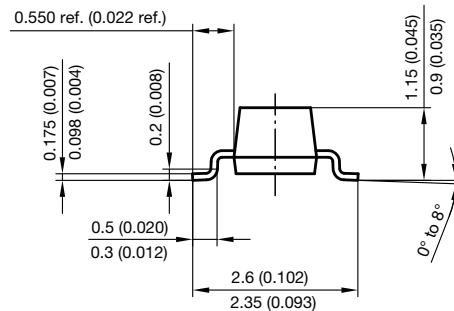
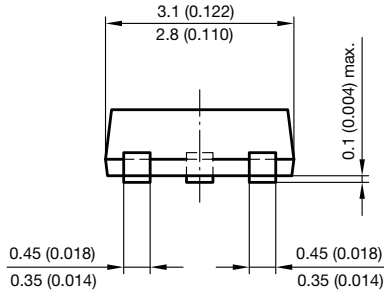
Fiberglass 1.5 mm (0.059 inches)

Copper leads 0.3 mm (0.012 inches)

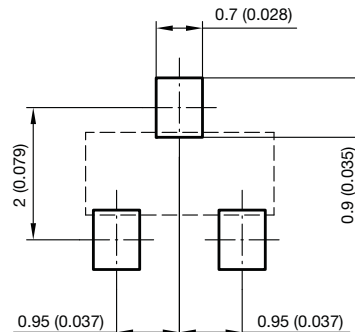


17451

**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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