



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

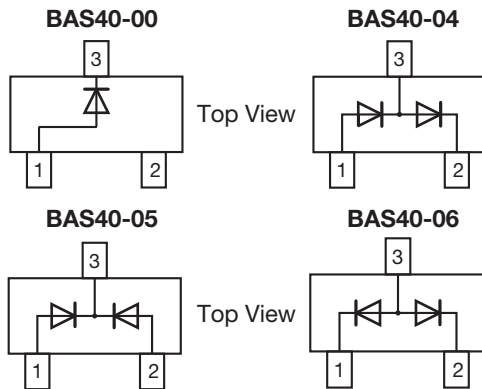
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 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
- 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](http://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

PARTS TABLE				
PART	ORDERING CODE	INTERNAL CONSTRUCTION	TYPE MARKING	REMARKS
BAS40-00	BAS40-00-E3-08 or BAS40-00-E3-18	Single diode	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 diodes serial	44	
	BAS40-04-HE3-08 or BAS40-04-HE3-18			
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			
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			

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 <sup>(1)</sup>		$I_F$	200	mA
Surge forward current <sup>(1)</sup>	$t_p < 1\text{ s}$	$I_{FSM}$	600	mA
Power dissipation <sup>(1)</sup>		$P_{tot}$	200	mW

**Note**
<sup>(1)</sup> 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 <sup>(1)</sup>		$R_{thJA}$	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**
<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

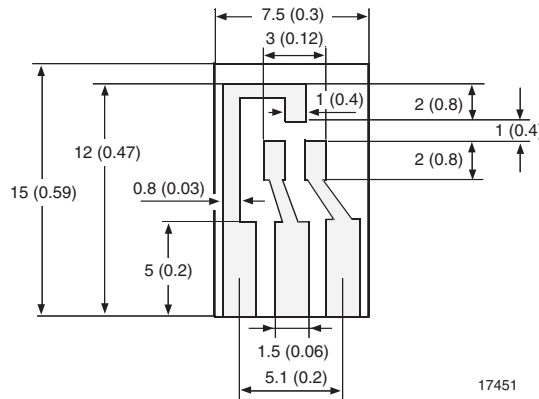
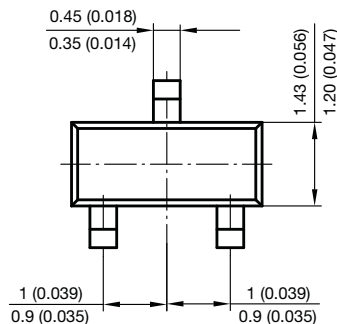
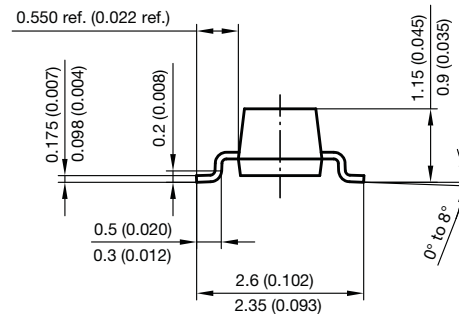
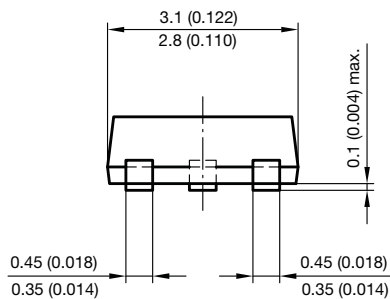
**Note**

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

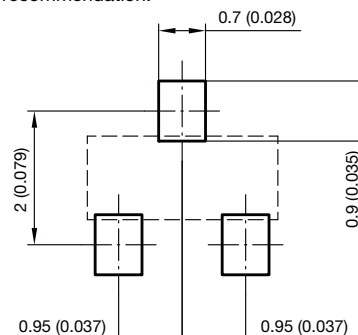
Thickness:

Fiberglass 1.5 mm (0.059 inches)

Copper leads 0.3 mm (0.012 inches)


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


Foot print recommendation:





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