

# BAS40-00-V to BAS40-06-V



Vishay Semiconductors

## Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		$R_{thJA}$	500 <sup>1)</sup>	K/W
Junction temperature		$T_j$	125	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	- 65 to + 150	$^{\circ}\text{C}$

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

## Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

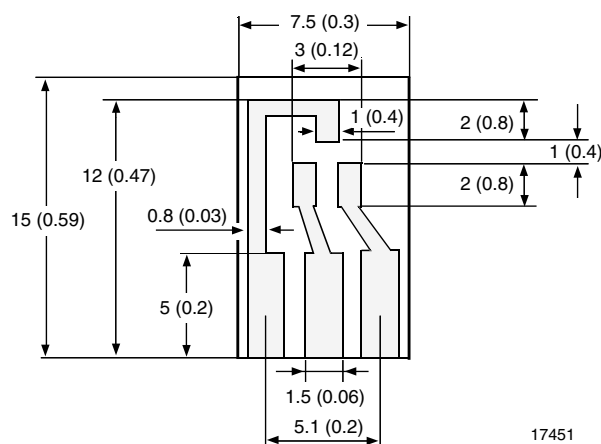
Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	$I_R = 10\text{ }\mu\text{A}$ (pulsed)	$V_{(BR)}$	40			V
Leakage current	Pulse test $V_R = 30\text{ V}$ , $t_p < 300\text{ }\mu\text{s}$	$I_R$		20	100	nA
Forward voltage	Pulse test $t_p < 300\text{ }\mu\text{s}$ , $I_F = 1\text{ mA}$	$V_F$			380	mV
	Pulse test $t_p < 300\text{ }\mu\text{s}$ , $I_F = 40\text{ mA}$	$V_F$			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

## Layout for $R_{thJA}$ test

Thickness:

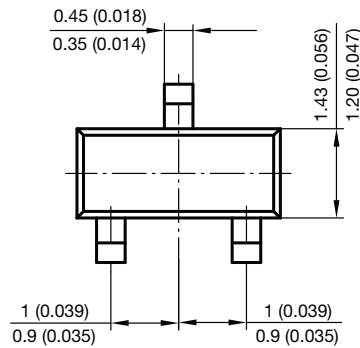
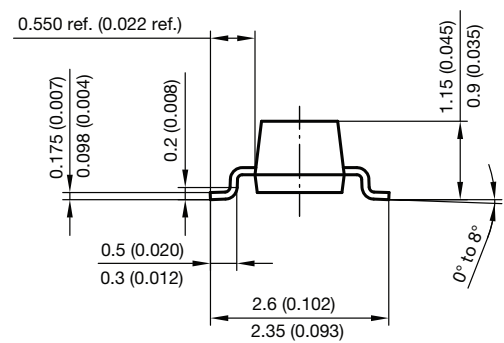
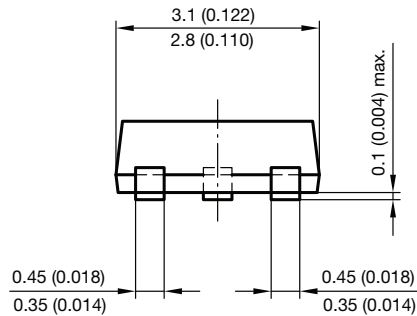
Fiberglass 1.5 mm (0.059 in.)

Copper leads 0.3 mm (0.012 in.)

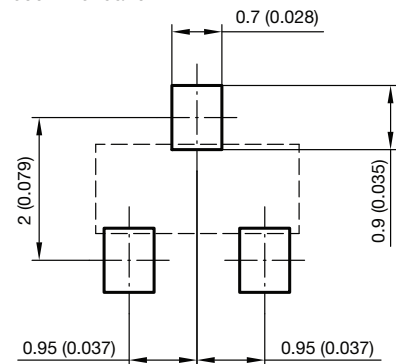


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## Package Dimensions in millimeters (inches): SOT-23



Foot print recommendation:



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