Small Signal Schottky Diodes, Single & Dual

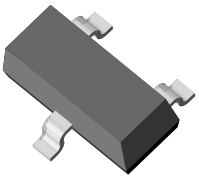
Features

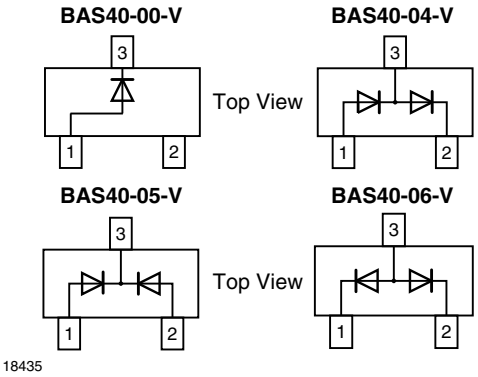
- These diodes feature very low turn-on voltage and fast switching
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Pb-free

e3

RoHS COMPLIANT





Mechanical Data

Case: SOT-23

Weight: approx. 8.8 mg

Packaging Codes/Options:

GS18 / 10 k per 13" reel (8 mm tape), 10 k/box

GS08 / 3 k per 7" reel (8 mm tape), 15 k/box

Parts Table

Part	Ordering code	Type Marking	Remarks
BAS40-00-V	BAS40-00-V-GS18 or BAS40-00-V-GS08	43	Tape and Reel
BAS40-04-V	BAS40-04-V-GS18 or BAS40-04-V-GS08	44	Tape and Reel
BAS40-05-V	BAS40-05-V-GS18 or BAS40-05-V-GS08	45	Tape and Reel
BAS40-06-V	BAS40-06-V-GS18 or BAS40-06-V-GS08	46	Tape and Reel

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		I_F	200[1)]	mA
Surge forward current	$t_p < 1$ s	I_{FSM}	600[1)]	mA
Power dissipation[1)]		P_{tot}	200[1)]	mW

[1)] Device on fiberglass substrate, see layout on next page.

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

Thermal Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	500[1)]	K/W
Junction temperature		T_j	125	°C
Storage temperature range		T_{stg}	- 65 to + 150	°C

[1)] Device on fiberglass substrate, see layout on next page.

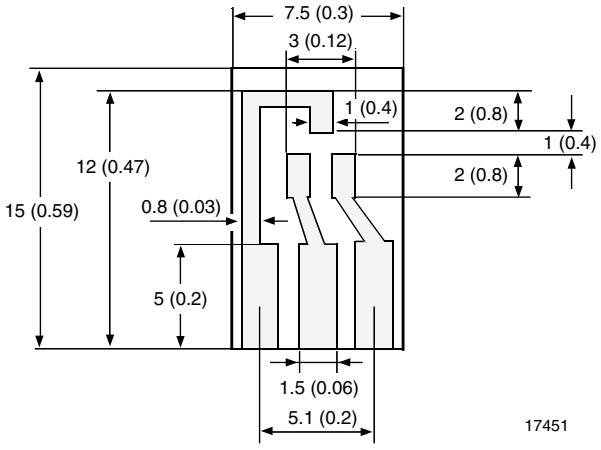
Electrical Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	I_R = 10 µA (pulsed)	$V_{(BR)}$	40			V
Leakage current	Pulse test V_R = 30 V, t_p < 300 µs	I_R		20	100	nA
Forward voltage	Pulse test t_p < 300 µs, I_F = 1 mA	V_F			380	mV
	Pulse test t_p < 300 µs, I_F = 40 mA	V_F			1000	mV
Diode capacitance	V_R = 0 V, f = 1 MHz	C_D		4	5	pF
Reverse recovery time	I_F = I_R = 10 mA, i_R = 1 mA, R_L = 100 Ω	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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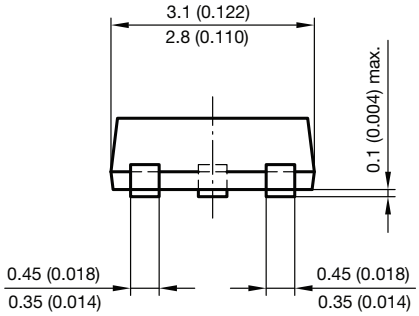
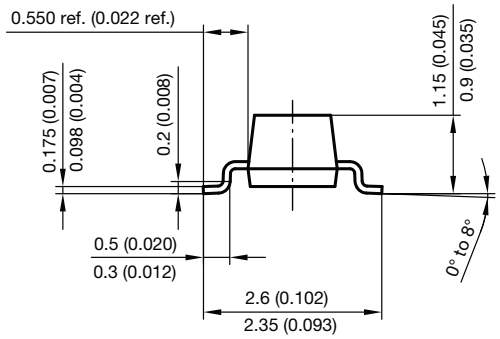
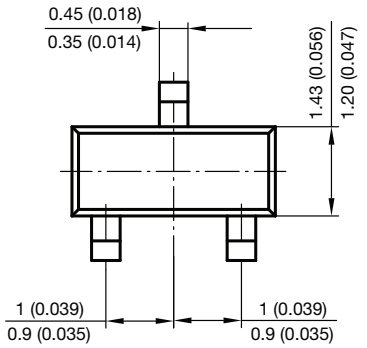
Package Dimensions in millimeters (inches): SOT-23







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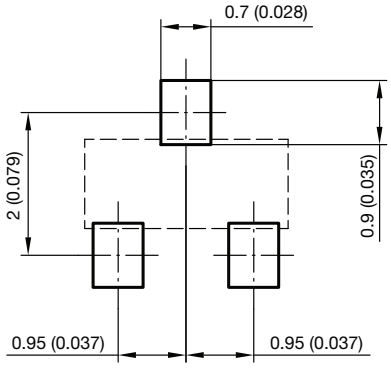

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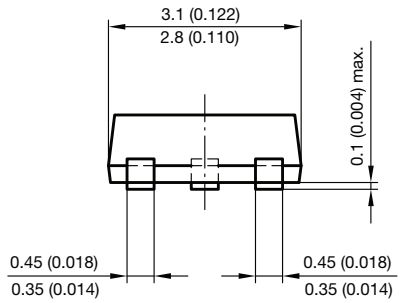
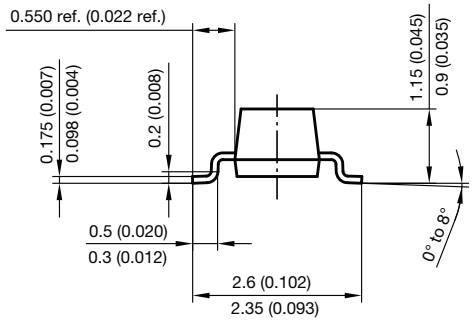
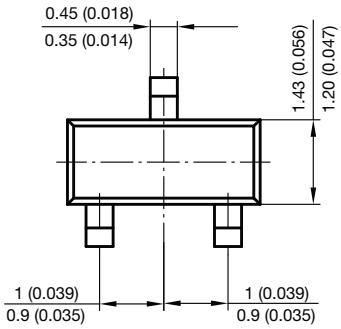
PACKAGE DIMENSIONS in millimeters (inches)







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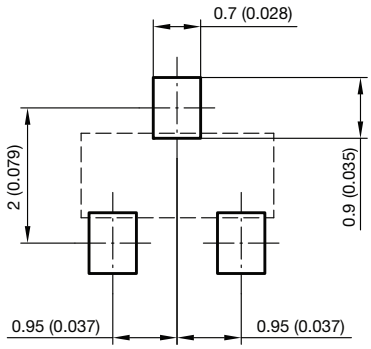

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