

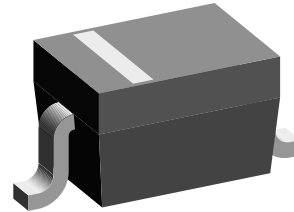
Small Signal Schottky Diode

Features

- Schottky diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT



20145

Mechanical Data

Case: SOD-323

Weight: approx. 4.3 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
BAS170WS-V	BAS170WS-V-GS18 or BAS170WS-V-GS08	73	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}	70	V
Forward continuous current		I_F	70	mA
Surge forward current	$t_p < 1\text{ s}$	I_{FSM}	600	mA
Power dissipation ¹⁾		P_{tot}	200	mW

Note:

¹⁾ Valid provided that electrodes are kept at ambient temperature.

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}	650	K/W
Junction temperature		T_j	125	$^{\circ}\text{C}$
Operating temperature range		T_{amb}	- 65 to + 125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

Note:

¹⁾ Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics

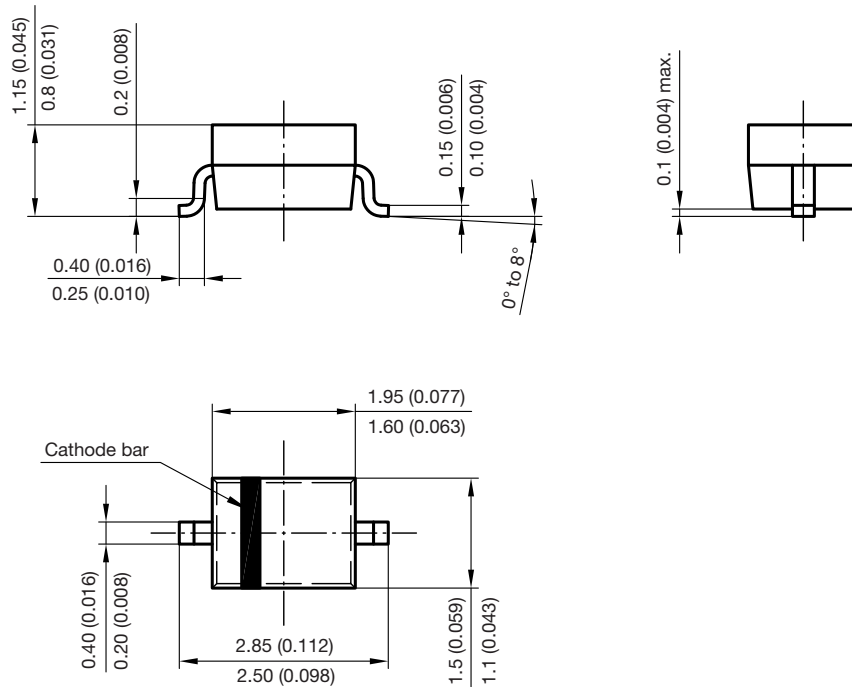
T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	I _R = 10 μA (pulsed)	V _(BR)	70			V
Leakage current	V _R = 50 V	I _R			0.1	μA
	V _R = 70 V	I _R			10	μA
Forward voltage	I _F = 1 mA	V _F		375	410	mV
	I _F = 10 mA	V _F		705	750	mV
Forward voltage ¹⁾	I _F = 15 mA	V _F		880	1000	mV
Diode capacitance	V _R = 0 V, f = 1 MHz	C _D		1.5	2	pF
Differential forward resistance	I _E = 5 mA, f = 10 kHz	R _F		34		Ω

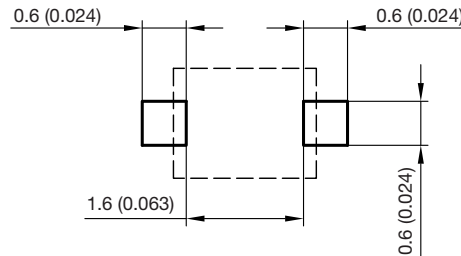
Note:

¹⁾ Pulse test; t_p ≤ 300 μs

Package Dimensions in millimeters (inches): SOD-323

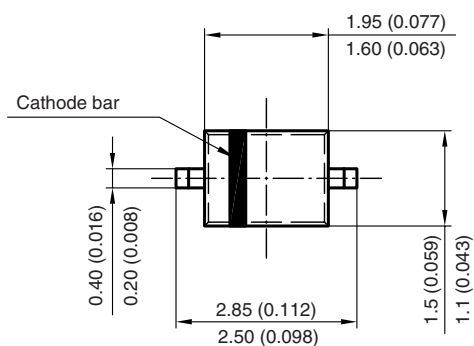
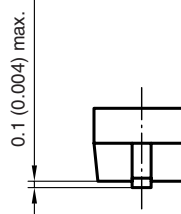
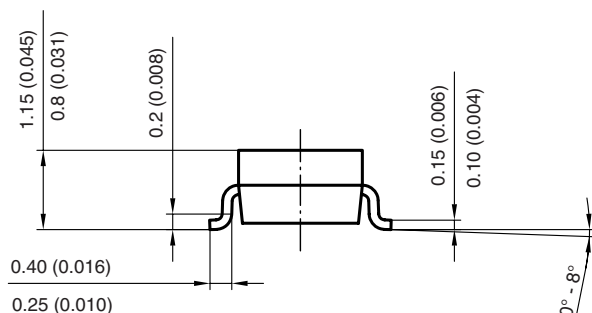


Foot print recommendation:

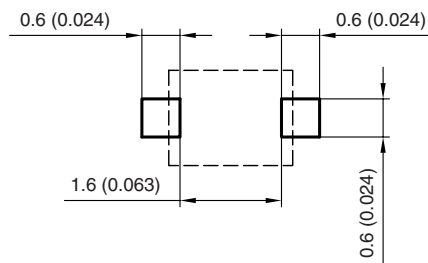


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 Rev. 5 - Date: 23.Sept.2009
 17443

PACKAGE DIMENSIONS in millimeters (inches)



Mounting pad layout



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17443



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