

Small Signal Schottky Diode



MECHANICAL DATA

Case: SOD-323

Weight: approx. 4.3 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

FEATURES

- Schottky diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- 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



RoHS
COMPLIANT

PARTS TABLE

PART	ORDERING CODE	INTERNAL CONSTRUCTION	TYPE MARKING	REMARKS
BAS170WS	BAS170WS-E3-08 or BAS170WS-E3-18	Single diode	73	Tape and reel
	BAS170WS-HE3-08 or BAS170WS-HE3-18			

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °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 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 °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	°C
Operating temperature range		T _{op}	- 55 to + 125	°C
Storage temperature range		T _{stg}	- 65 to + 150	°C

Note

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

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

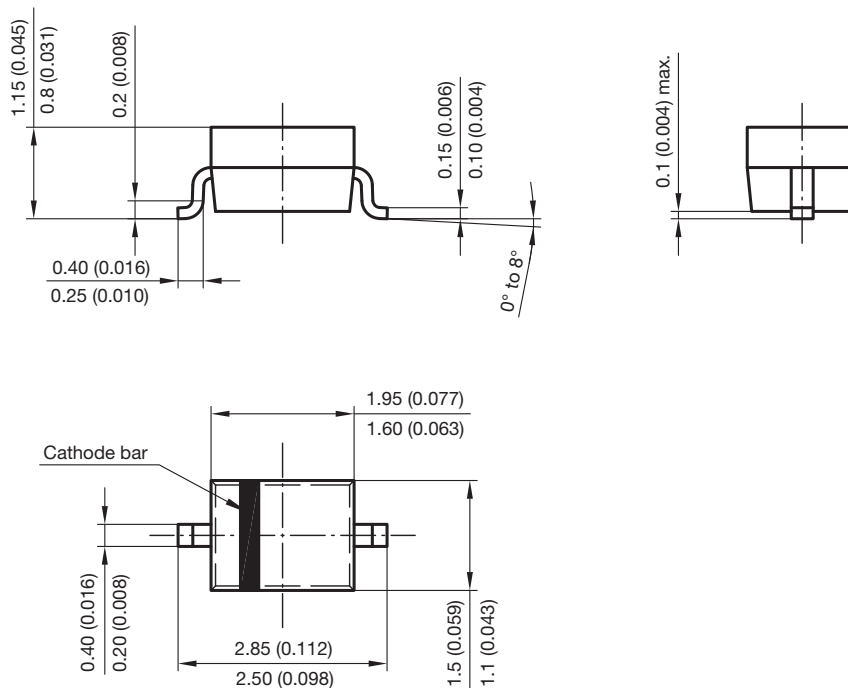
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	I _R = 10 µA (pulsed)	V _(BR)	70			V
Leakage current	V _R = 50 V	I _R			0.1	µA
	V _R = 70 V	I _R			10	µA
Forward voltage	I _F = 1 mA	V _F		375	410	mV
	I _F = 10 mA	V _F		705	750	mV
Forward voltage ⁽¹⁾	I _F = 15 mA	V _F		880	1000	mV
Diode capacitance	V _R = 0 V, f = 1 MHz	C _D		1.5	2	pF
Differential forward resistance	I _F = 5 mA, f = 10 kHz	r _f		34		Ω

Note

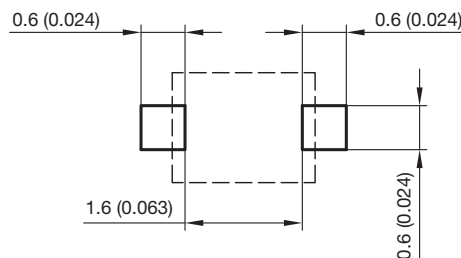
⁽¹⁾ Pulse test; t_p ≤ 300 µs



PACKAGE DIMENSIONS in millimeters (inches): **SOD-323**



Foot print recommendation:



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