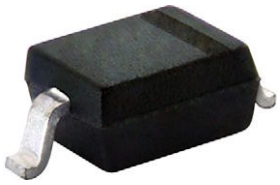
Small Signal Schottky Diode



FEATURES

- Schottky diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- AEC-Q101 qualified available
  (part number on request)
- Base P/N-G3 - green, commercial grade
- Material categorization:
  for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

e3

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

MECHANICAL DATA

Case: SOD-323

Weight: approx. 4.0 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
BAS170WS-G	BAS170WS-G3-08 or BAS170WS-G3-18	Single diode	7G	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}	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

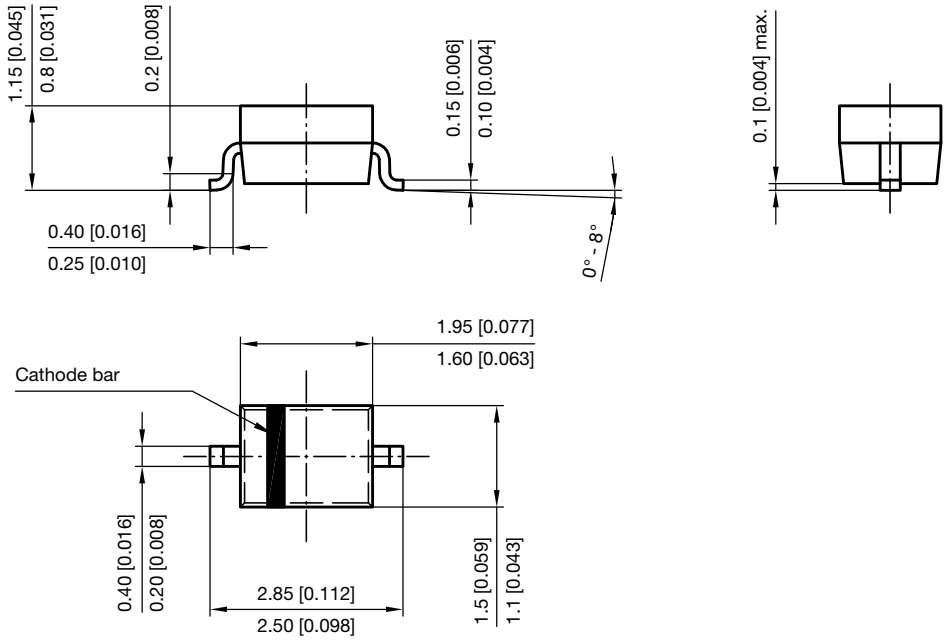
Note

(1) Pulse test; $t_p \leq 300$ µs

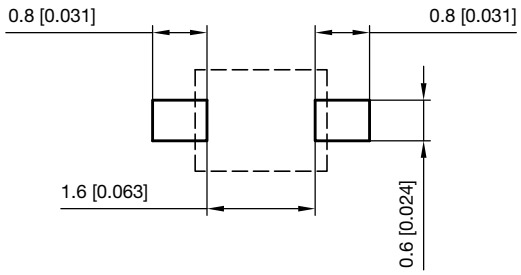
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PACKAGE DIMENSIONS in millimeters (inches): **SOD-323**



Footprint recommendation:



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Rev. 6 - Date: 23.Sept.2016
17443

For technical questions within your region: DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com
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