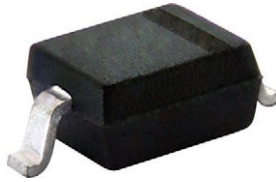




# Small Signal Schottky Diode



### 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 available
- 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](http://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 <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V <sub>RRM</sub>	70	V
Forward continuous current		I <sub>F</sub>	70	mA
Surge forward current	t <sub>p</sub> < 1 s	I <sub>FSM</sub>	600	mA
Power dissipation <sup>(1)</sup>		P <sub>tot</sub>	200	mW

### Note

<sup>(1)</sup> Valid provided that electrodes are kept at ambient temperature

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air <sup>(1)</sup>		R <sub>thJA</sub>	650	K/W
Junction temperature		T <sub>j</sub>	125	°C
Operating temperature range		T <sub>op</sub>	-55 to +125	°C
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C

### Note

<sup>(1)</sup> Valid provided that electrodes are kept at ambient temperature

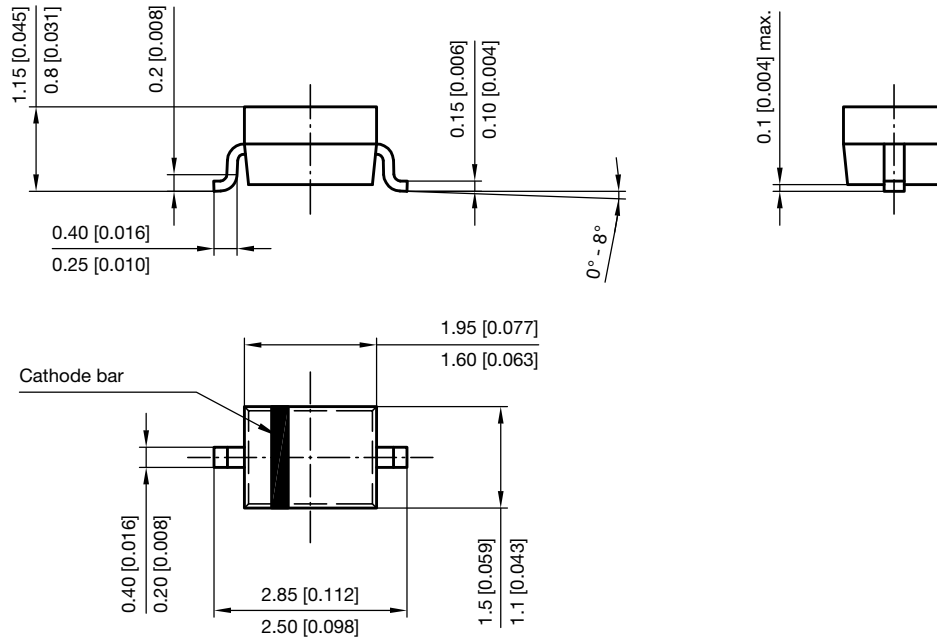
ELECTRICAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	I <sub>R</sub> = 10 μA (pulsed)	V <sub>(BR)</sub>	70			V
Leakage current	V <sub>R</sub> = 50 V	I <sub>R</sub>			0.1	μA
	V <sub>R</sub> = 70 V	I <sub>R</sub>			10	μA
Forward voltage	I <sub>F</sub> = 1 mA	V <sub>F</sub>		375	410	mV
	I <sub>F</sub> = 10 mA	V <sub>F</sub>		705	750	mV
Forward voltage <sup>(1)</sup>	I <sub>F</sub> = 15 mA	V <sub>F</sub>		880	1000	mV
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>		1.5	2	pF
Differential forward resistance	I <sub>F</sub> = 5 mA, f = 10 kHz	r <sub>f</sub>		34		Ω

### Note

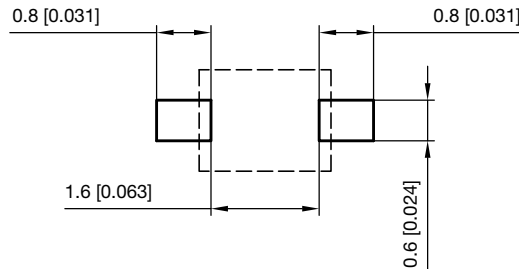
<sup>(1)</sup> Pulse test; t<sub>p</sub> ≤ 300 μs



PACKAGE DIMENSIONS in millimeters (inches): SOD-323



Footprint recommendation:



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 Created - Date: 24.August.2004  
 Rev. 6 - Date: 23.Sept.2016  
 17443



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