

Vishay Semiconductors

Small Signal Schottky Diode



DESIGN SUPPORT TOOLS click logo to get started

3D Models Available

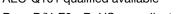
MECHANICAL DATA

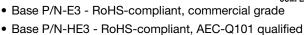
Case: SOD-323
Weight: approx. 4.3 mg
Packaging codes/options:

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





 Material categorization: for definitions of compliance please see www.vishay.com/doc?99912







PARTS TABLE					
PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
BAS170WS	BAS170WS-E3-08 or BAS170WS-E3-18	Single	73	Tape and reel	
DASTIUVS	DAG470146 LIES 00 DAG470146 LIES 40	Single	13		

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

BAS170WS-HE3-08 or BAS170WS-HE3-18

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
Lastrasa suurant	V _R = 50 V	I _R			0.1	μΑ
Leakage current	V _R = 70 V	I _R			10	μΑ
Converd veltage	I _F = 1 mA	V_{F}		375	410	mV
Forward voltage	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	$I_{\rm F} = 5$ mA. $f = 10$ kHz	r _f		34		Ω

Note

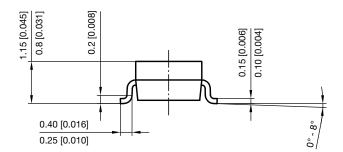
 $^{(1)} \quad \text{Pulse test; } t_p \leq 300 \; \mu\text{s}$

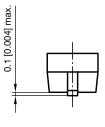
⁽¹⁾ Valid provided that electrodes are kept at ambient temperature

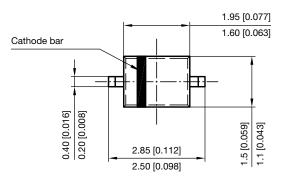


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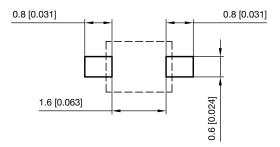
PACKAGE DIMENSIONS in millimeters (inches): SOD-323







Footprint recommendation:



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