Tape and reel



Vishay Semiconductors

Small Signal Schottky Diode



DESIGN SUPPORT TOOLS click logo to get started

Models Available

MECHANICAL DATA

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

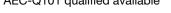
18/10K per 13" reel (8 mm tape), 10K/box

FEATURES

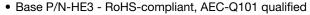
- Schottky diode for high-speed switching
- · Circuit protection
- Voltage clamping

CONFIGURATION

Single







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

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High-level detecting and mixing	
AFC-Q101 qualified available	

1	B mm tape), 15K/box			
PARTS TABLE				
PART	ORDERING CODE	CIRCUIT	TYPE MARKING	REMARKS

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

BAS170WS-E3-08 or BAS170WS-E3-18

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 _i	125	°C	
Operating temperature range		T _{op}	-55 to +125	°C	
Storage temperature range		T _{sta}	-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	μΑ
	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	$I_F = 5 \text{ mA}, f = 10 \text{ kHz}$	r _f		34		Ω

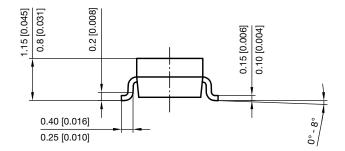
Note

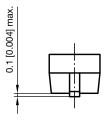
Pulse test; t_p ≤ 300 µs

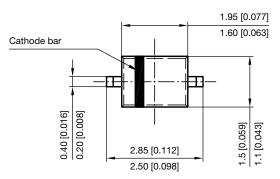
⁽¹⁾ Valid provided that electrodes are kept at ambient temperature

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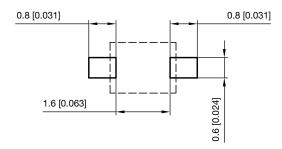
PACKAGE DIMENSIONS in millimeters (inches): SOD-323







Footprint recommendation:



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