



200mA Surface Mount Switching Diode - 75V SOD-323 Package

BAS16H

FEATURE

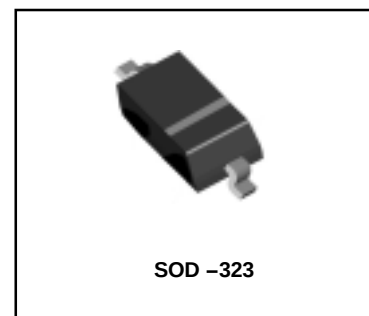
- Small plastic SMD package.
- Continuous reverse voltage: max. 75 V.
- High-speed switching in hybrid thick and thin-film circuits.
- We declare that the material of product compliance with RoHS requirements.
- **Moisture Sensitivity Level 1**
- **Polarity:** Color band denotes cathode end

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
BAS16H	A6	3000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	75	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM}(\text{surge})$	500	mAdc



THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A = 25^\circ\text{C}$	P_D	200	mW
Derate above 25°C		1.57	mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	$^\circ\text{C/W}$
Operating/Junction and Storage Temperature	T_J, T_{stg}	-55to+150	$^\circ\text{C}$

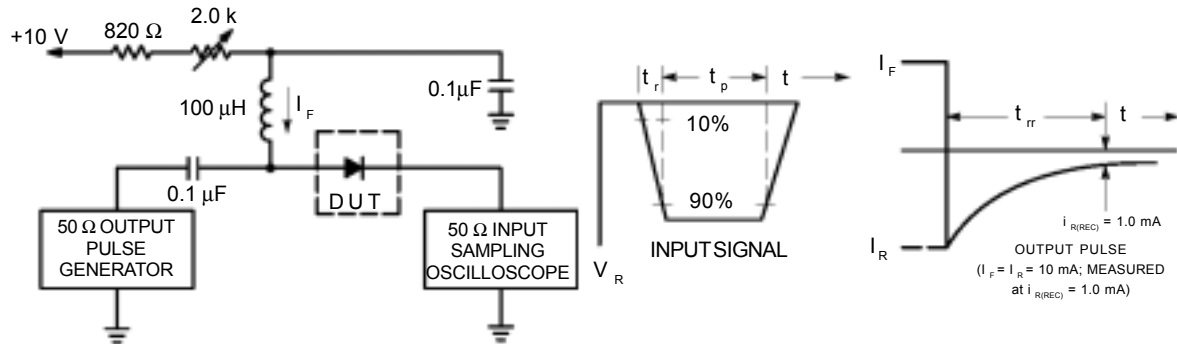
*FR-4 Minimum Pad

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Reverse Voltage Leakage Current ($V_R = 75\text{ Vdc}$)	I_R	—	1.0	μAdc
($V_R = 75\text{ Vdc}, T_J = 150^\circ\text{C}$)		—	50	
($V_R = 25\text{ Vdc}, T_J = 150^\circ\text{C}$)		—	30	
Reverse Breakdown Voltage ($I_{BR} = 100\text{ }\mu\text{Adc}$)	$V_{(BR)}$	75	—	Vdc
Forward Voltage ($I_F = 1.0\text{ mAdc}$)	V_F	—	715	mV
($I_F = 10\text{ mAdc}$)		—	855	
($I_F = 50\text{ mAdc}$)		—	1000	
($I_F = 150\text{ mAdc}$)		—	1250	
Diode Capacitance ($V_R = 0, f = 1.0\text{ MHz}$)	C_D	—	2.0	pF
Forward Recovery Voltage ($I_F = 10\text{ mAdc}, t_r = 20\text{ ns}$)	V_{FR}	—	1.75	Vdc
Reverse Recovery Time ($I_F = I_R = 10\text{ mAdc}, R_L = 50\text{ }\Omega$)	t_{rr}	—	4.0	ns
Stored Charge ($I_F = 10\text{ mAdc}$ to $V_R = 5.0\text{ Vdc}, R_L = 500\text{ }\Omega$)	Q_s	—	45	pC



- Notes: 1. A 2.0 k Ω variable resistor adjusted for a Forward Current (I_F) of 10mA.
2. Input pulse is adjusted so $I_{R(\text{peak})}$ is equal to 10mA.
3. $t_p \gg t_r$

Figure 1. Recovery Time Equivalent Test Circuit

TYPICAL CHARACTERISTICS

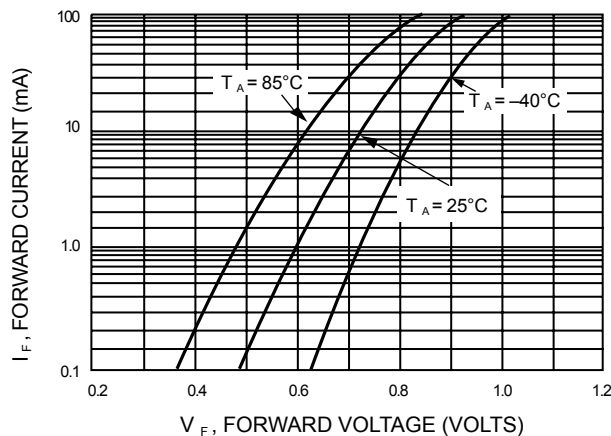


Figure 2. Forward Voltage

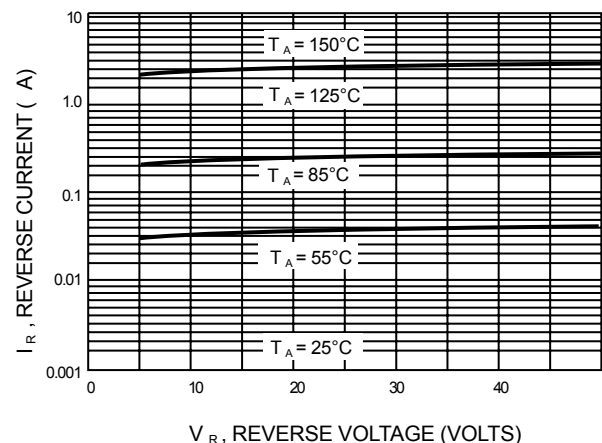


Figure 3. Leakage Current

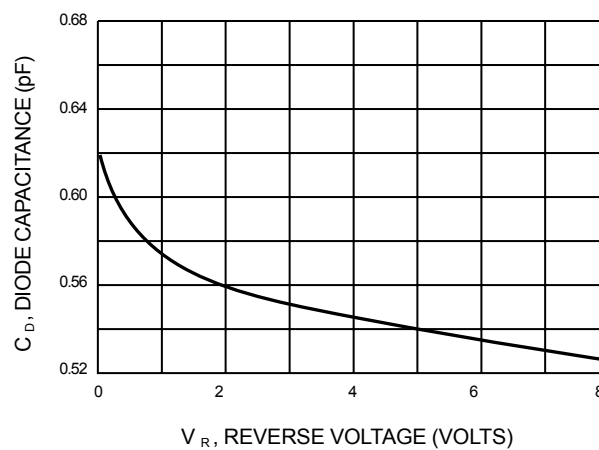


Figure 4. Capacitance



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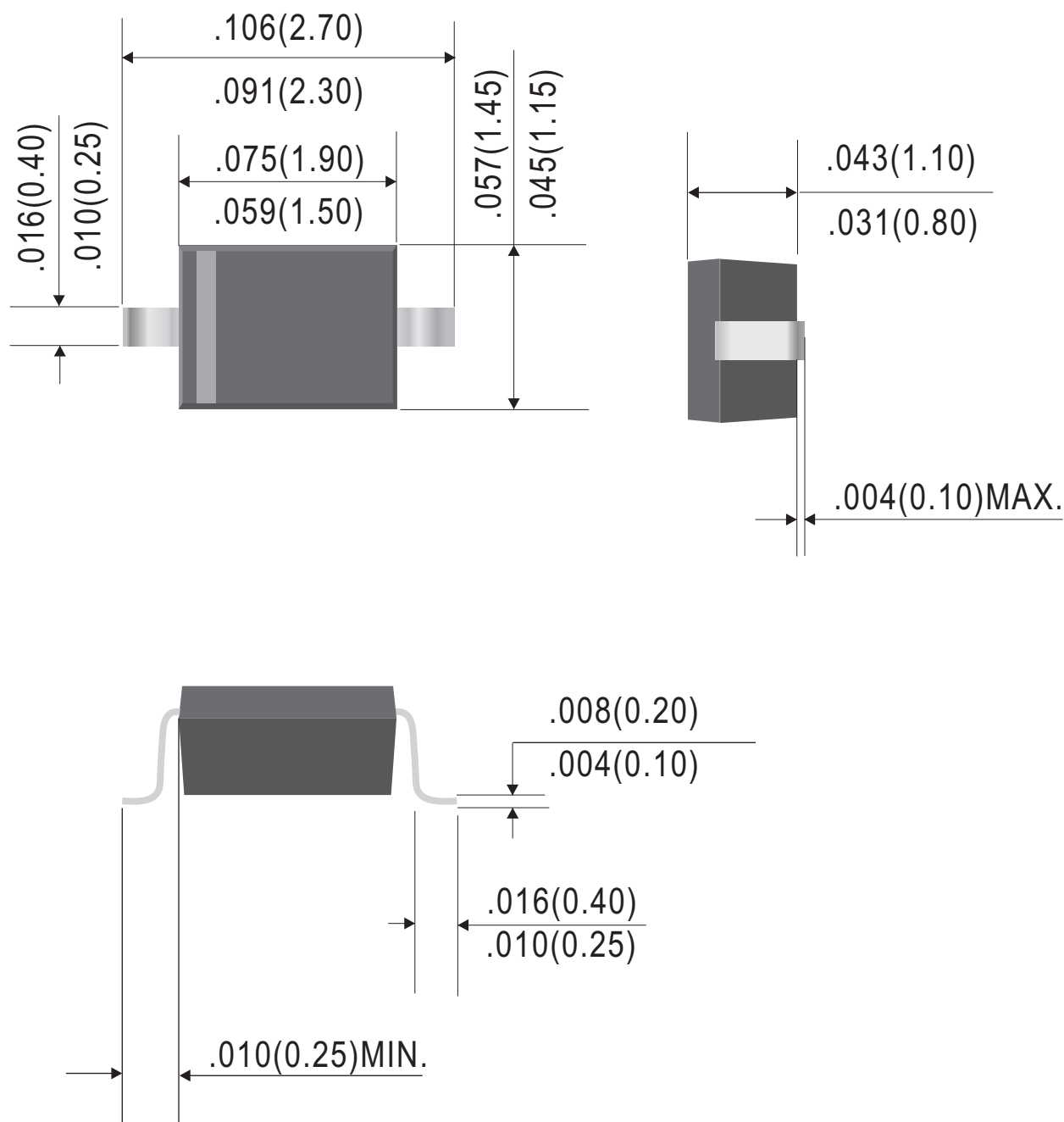
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SOD-323 Package

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Outline Drawing

SOD-323



Dimensions in inches and (millimeters)

Rev.C



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Ordering Information:

Device PN	Packing
BAS16H -T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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