



DESCRIPTION

The BAS16H is available in SOD-323 Package

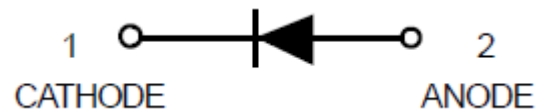
FEATURES

- Small plastic SMD package.
- Continuous reverse voltage: max. 75V.
- High-speed switching in hybrid thick and thin-film circuits.
- RoHS Compliant
- Available in SOD-323 Package

ORDERING INFORMATION

Package Type	Part Number
SOD-323	BAS16H
Note	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

V_R , Continuous Reverse Voltage	75Vdc
I_F , Peak Forward Current	200mAdc
$I_{FM(surge)}$, Peak Forward Surge Current	500mAdc
P_D , Total Device Dissipation FR-5 Board ^{NOTE1} $T_A=25^\circ\text{C}$ Derate above 25°C	200mW 1.57mW/ $^\circ\text{C}$
$R_{\theta JA}$, Thermal Resistance Junction to Ambient	635 $^\circ\text{C/W}$
T_J, T_{STG} , Junction and Storage Temperature	-55 $^\circ\text{C}$ ~ +150 $^\circ\text{C}$

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: FR-4 Minimum Pad



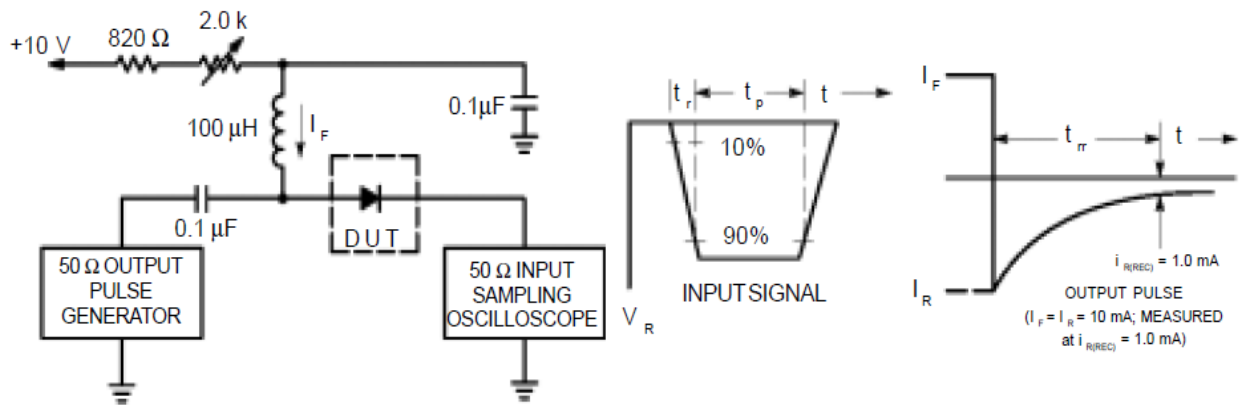
ELECTRICAL CHARACTERISTICS

T_A=25°C, unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Reverse Voltage Leakage Current	I _R	V _R =75Vdc			1.0	uAdc
		V _R =75Vdc, T _J =150°C			50	
		V _R =25Vdc, T _J =150°C			30	
Reverse Breakdown Voltage	V _(BR)	I _{BR} = 100μAdc	75			Vdc
Forward Voltage	V _F	I _F =1.0mAdc			715	mV
		I _F =10mAdc			855	
		I _F =50mAdc			1000	
		I _F =150mAdc			1250	
Diode Capacitance	C _D	V _R =0, f=1.0MHz			2.0	pF
Forward Recovery Voltage	V _{FR}	I _F =10mAdc, t _r =20ns			1.75	Vdc
Reverse Recovery Time	t _{rr}	I _F =I _R =10mAdc, R _L =50Ω			4.0	ns
Stored Charge	Q _S	I _F =10mAdc to V _R =5.0Vdc, R _L =500Ω			45	pC

TEST CIRCUIT

Figure 1. Recovery Time Equivalent Test Circuit



NOTE1: A 2.0kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.

NOTE2: Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.

NOTE3: $t_p \gg t_{rr}$



TYPICAL CHARACTERISTICS

Figure 1. Forward Voltage

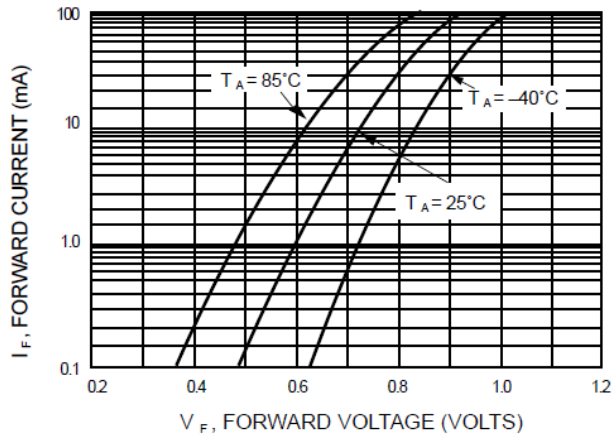


Figure 2. Leakage Current

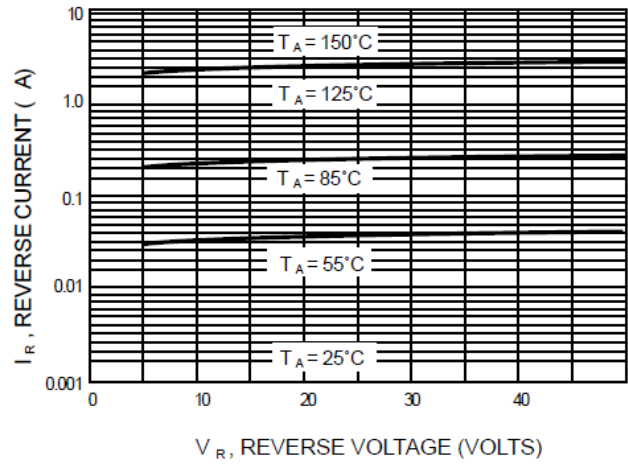
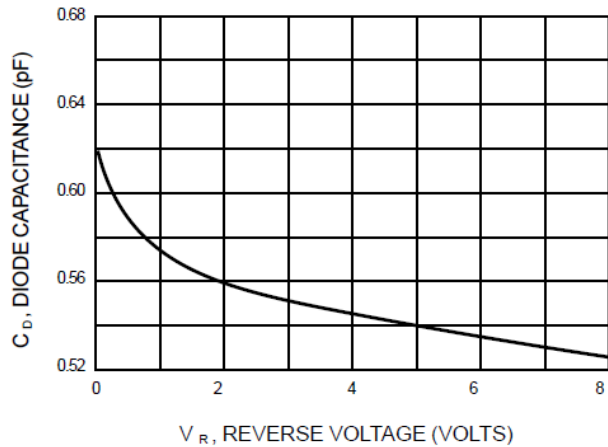


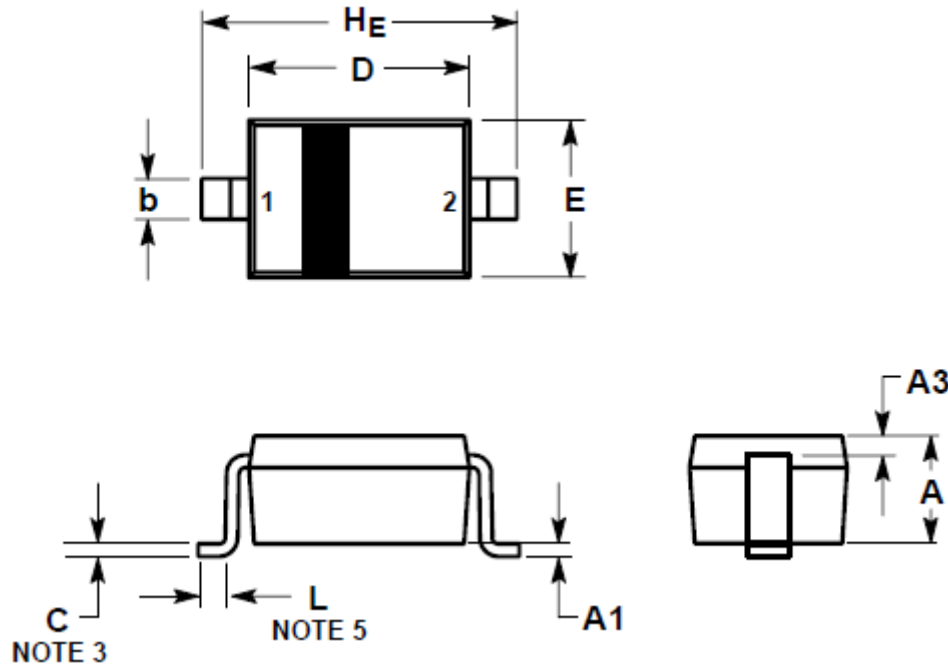
Figure 3. Capacitance





PACKAGE INFORMATION

Dimension in SOD-323 Package (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.00	0.031	0.040
A1	0.00	0.10	0.000	0.004
A3	0.15 REF		0.006 REF	
b	0.25	0.40	0.010	0.016
C	0.089	0.177	0.003	0.007
D	1.60	1.80	0.062	0.070
E	1.15	1.35	0.045	0.053
L	0.08		0.003	
HE	2.30	2.70	0.090	0.105



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