



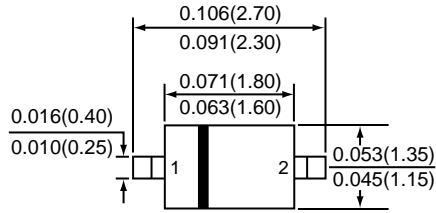
BAS16HT1

SURFACE MOUNT SWITCHING DIODE

Reverse Breakdown Voltage - 75 Volts

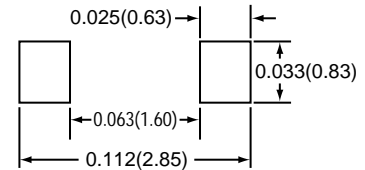
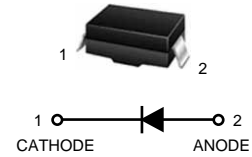
Peak Forward Current - 200mA

SOD-323



- NOTES: 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.

*Dimensions in inches and (millimeters)



Device Marking : BAS16HT1 = A6

MAXIMUM RATINGS

<i>Ratings at 25°C ambient temperature unless otherwise specified.</i>	SYMBOLS	VALUE	UNITS
Continuous Reverse Voltage	V_R	75	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	I_{FSM}	500	mAdc

THERMAL CHARACTERISTICS

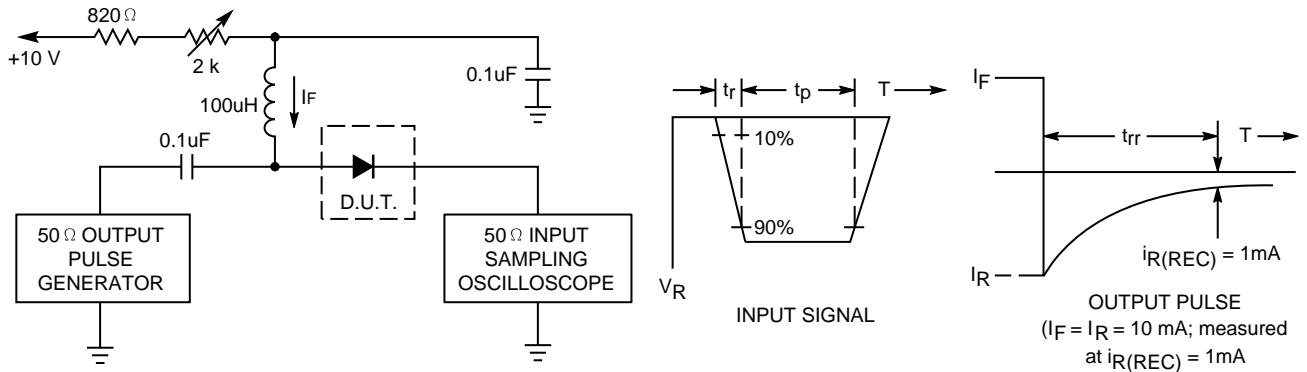
CHARACTERISTIC	SYMBOLS	MAX.	UNITS
Total Device Dissipation FR-5 Board, $T_A=25^\circ\text{C}$ Derate above 25°C	P_D	200 1.57	mW mW / °C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C / W
Junction and Storage Temperature	T_J, T_{STG}	150	°C

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

CHARACTERISTIC	SYMBOLS	MIN.	MAX.	UNITS
Reverse Voltage Leakage Current ($V_R=75\text{Vdc}$) ($V_R=75\text{Vdc}, T_J=150^\circ\text{C}$) ($V_R=25\text{Vdc}, T_J=150^\circ\text{C}$)	I_R	- - -	1.0 50 30	uAdc
Reverse Breakdown Voltage ($I_{BR}=100\text{uAdc}$)	$V_{(BR)}$	75	-	Vdc
Forward Voltage ($I_F=1.0\text{mAdc}$) ($I_F=10\text{mAdc}$) ($I_F=50\text{mAdc}$) ($I_F=150\text{mAdc}$)	V_F	- - - -	0.72 0.86 1.00 1.25	Vdc
Junction Capacitance ($V_R=0, f=1.0\text{MHz}$)	C_J	-	2.0	pF
Forward Recovery Voltage ($I_F=10\text{mAdc}, t_r=20\text{nS}$)	V_{FR}	-	1.75	Vdc
Reverse Recovery Time ($I_F=I_R=10\text{mAdc}, R_L=50\Omega$)	t_{rr}	-	6.0	nS
Stored Charge ($I_F=10\text{mAdc}, \text{to } V_R=5.0\text{Vdc}, R_L=500\Omega$)	Q_S	-	45	pC

RATINGS AND CHARACTERISTIC CURVES OF BAS16HT1

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



- Notes:
1. A 2.0kΩ 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. $t_p \gg t_{rr}$

FIGURE 2. FORWARD VOLTAGE

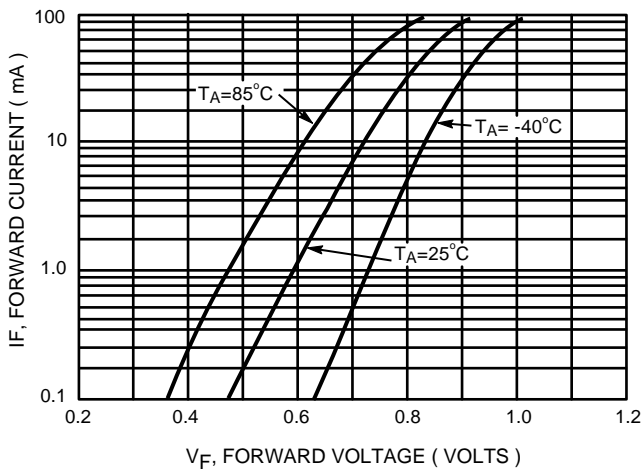


FIGURE 3. LEAKAGE CURRENT

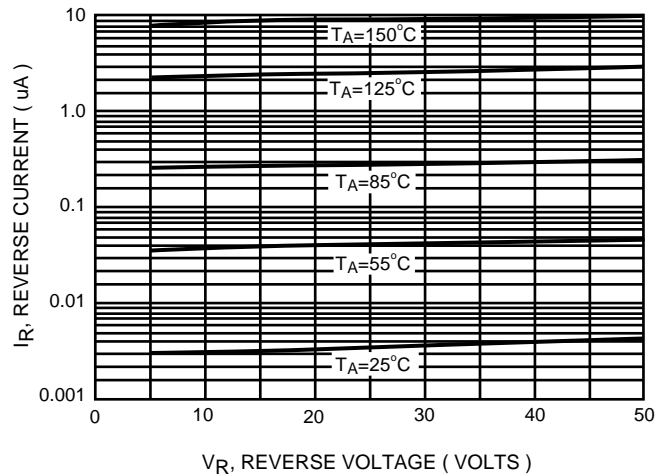


FIGURE 4. CAPACITANCE

