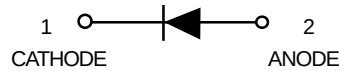


Switching Diode



BAS16HT1



CASE 477- 02, STYLE 1
SOD- 323

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	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	150	$^\circ\text{C}$

**FR-4 Minimum Pad

DEVICEMARKING

BAS16HT1 = A6

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

Characteristic	Symbol	Min	Max	Unit
----------------	--------	-----	-----	------

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 ($I_{BR} = 100 \mu\text{Adc}$)	$V_{(BR)}$	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 ($I_F = I_R = 10 \text{ mAdc}, R_L = 50 \Omega$)	t_{rr}	—	6.0	ns
Stored Charge ($I_F = 10 \text{ mAdc}$ to $V_R = 5.0 \text{ Vdc}, R_L = 500 \Omega$)	Q_s	—	45	pC

BAS16HT1

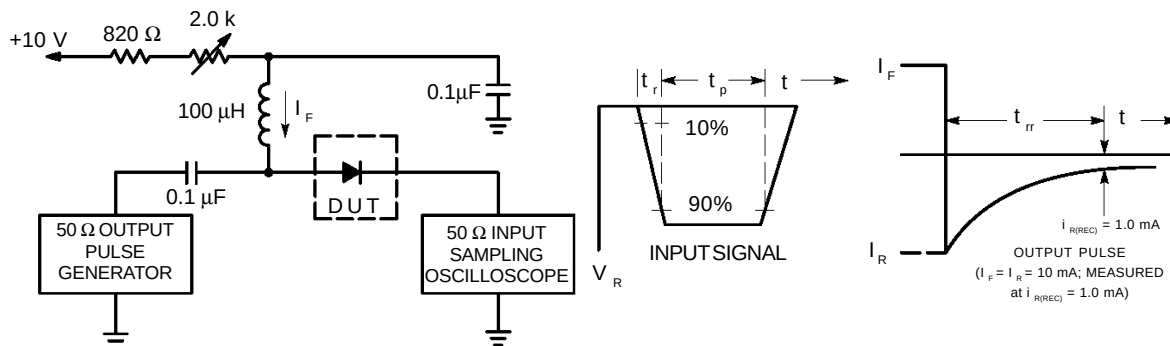


Figure 1. Recovery Time Equivalent Test Circuit

TYPICAL CHARACTERISTICS

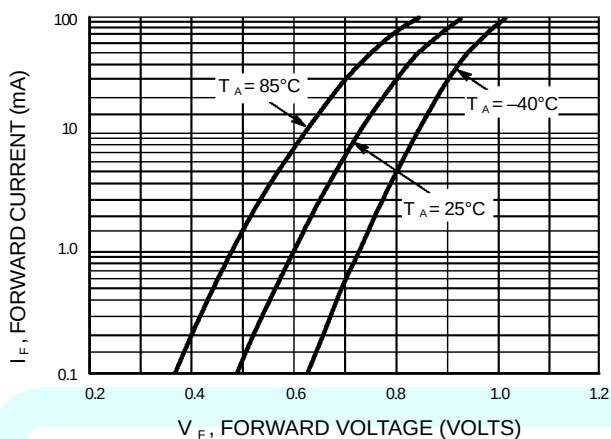


Figure 2. Forward Voltage

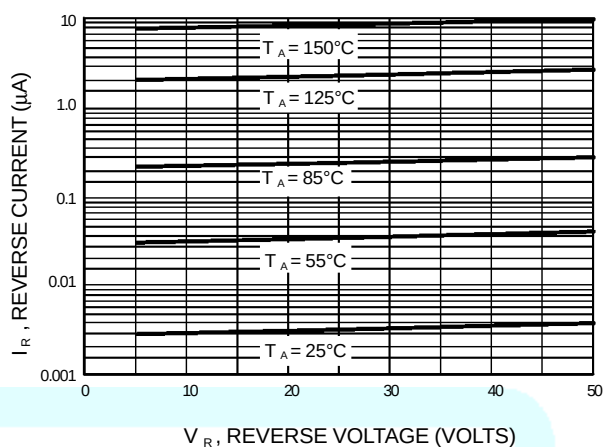


Figure 3. Leakage Current

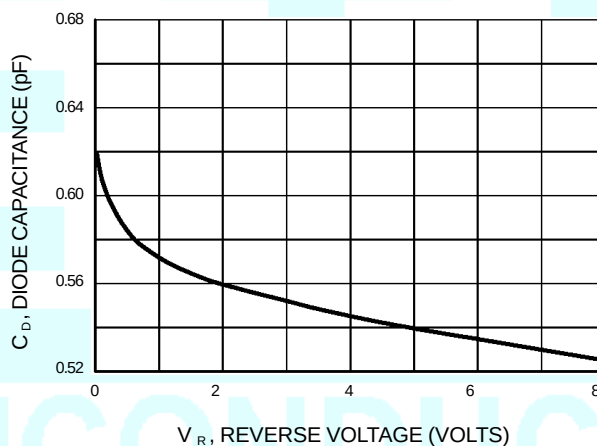


Figure 4. Capacitance