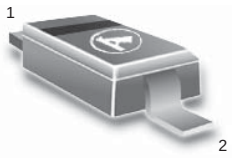
High Voltage Switching Diode

BAS20HT1

- Device Marking: JS



CASE 477, STYLE 1
SOD– 323

MARKING DIAGRAM

JS= Specific Device Code
M = Date Code

ORDERING INFORMATION

Device	Package	Shipping
BAS20HT1	SOD–323	3000/Tape & Reel

Preferred: devices are recommended choices for future use and best overall value.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	250	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	625	mAdc

THERMAL CHARACTERISTICS

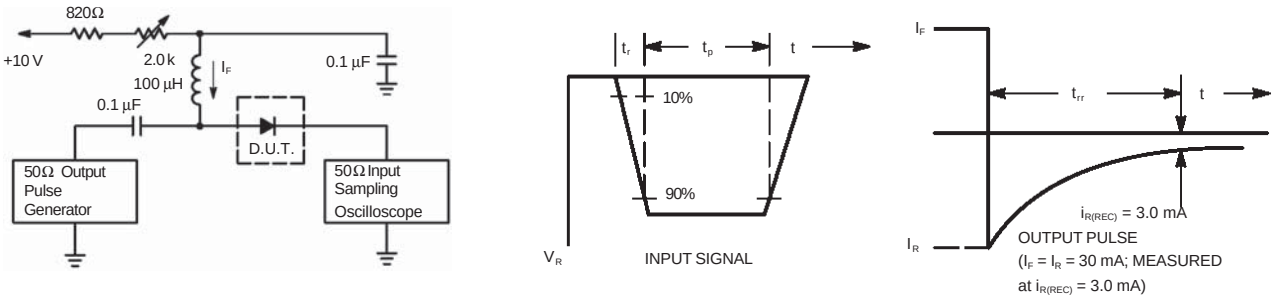
Characteristic	Symbol	Max	Unit
Total Device Dissipation FR–5 Board,* T_A = 25°C	P_D	200	mW
Derate above 25°C		1.57	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C/W
Junction and Storage Temperature Range	T_J, T_{stg}	–55 to+150	°C

*FR–5 Minimum Pad

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Reverse Voltage Leakage Current	I_R			µAdc
(V_R = 200 Vdc)		–	1.0	
(V_R = 200 Vdc, T_J = 150°C)		–	100	
Reverse Breakdown Voltage (I_{BR} = 100 µAdc)	$V_{(BR)}$	250	–	Vdc
Forward Voltage	V_F			mV
(I_F = 100 mAdc)		–	1000	
(I_F = 200 mAdc)		–	1250	
Diode Capacitance (V_R = 0, f = 1.0 MHz)	C_D	–	5.0	pF
Reverse Recovery Time (I_F = I_R = 30 mAdc, R_L = 100 Ω)	t_{rr}	–	50	ns

BAS20HT1



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 30 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 30 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

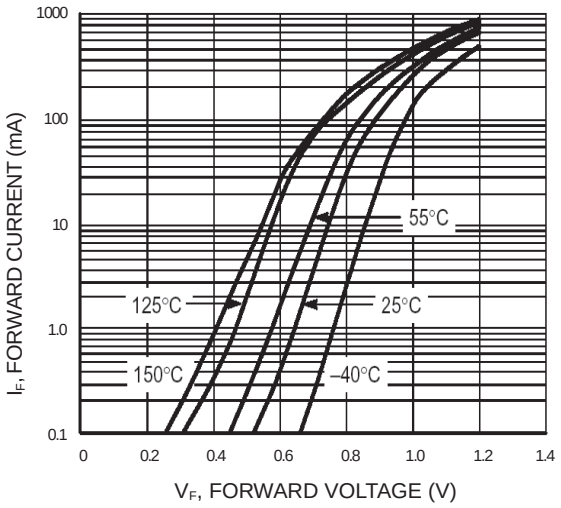


Figure 2. Forward Current

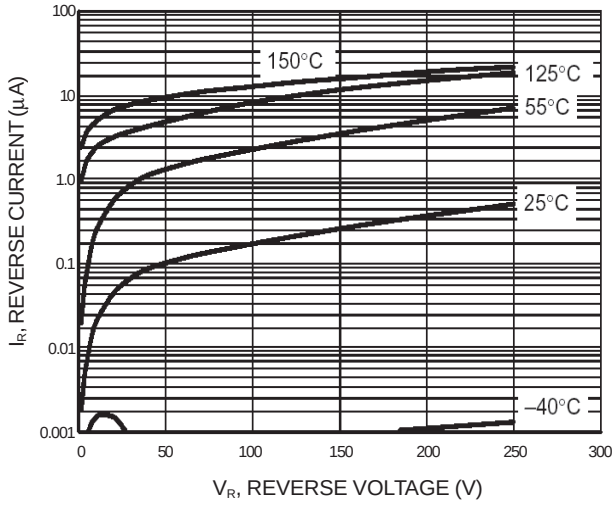


Figure 3. Leakage Current

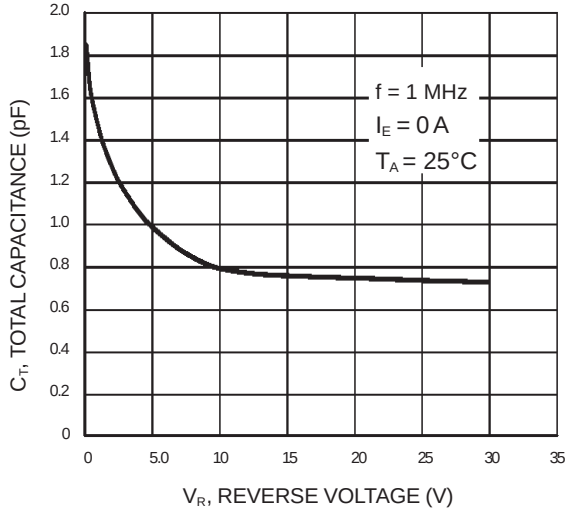


Figure 4. Total Capacitance

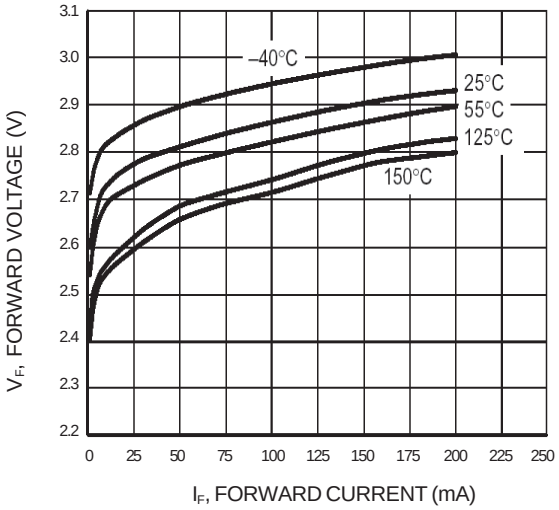


Figure 5. Forward Voltage

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