Elektronische Bauelemente

BAS21H

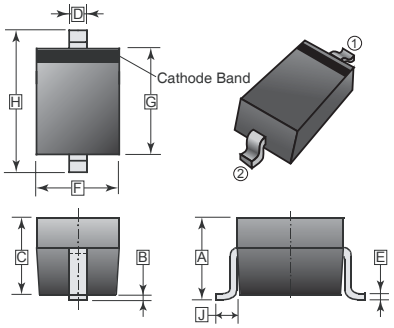
Surface Mount Switching Diode

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for automatic Insertion
- For General Purpose Switching Applications

SOD-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05 REF.		E	0.080	0.180
B	0.20 REF.		F	1.15	1.45
C	0.80	1.00	G	1.60	1.80
D	0.25	0.40	H	2.30	2.70

MARKING: T3

ABSOLUTE MAXIMUM RATINGS (Single diode @ T_A = 25°C)

Parameter	Symbol	Ratings	Unit
Continuous Reverse Voltage	V_R	250	V
Peak Forward Current	I_F	200	mA
Peak Forward Surge Current	$I_{FM(Surge)}$	625	mA

THERMAL CHARACTERISTICS

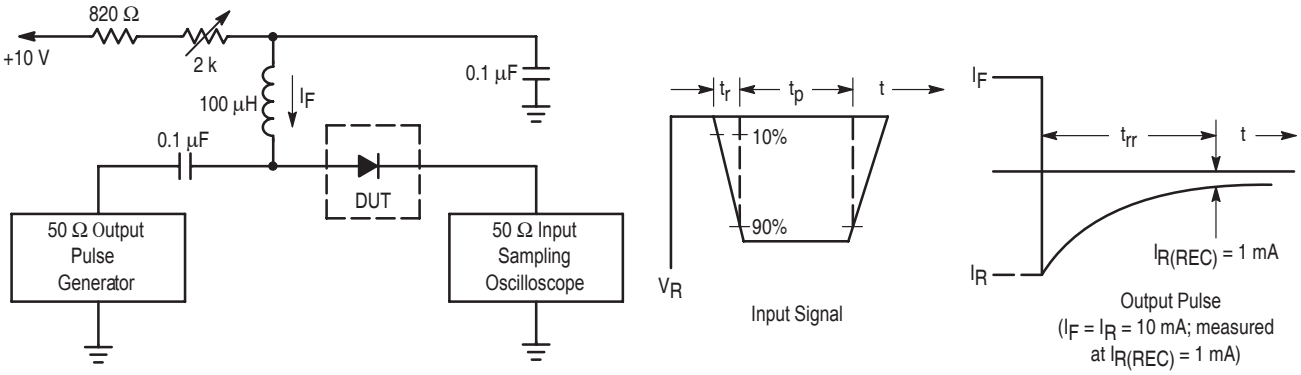
Parameter	Symbol	Maximum Ratings	Unit
Total Device Dissipation FR–5 Board[1] T_A = 25°C Derate above 25°C	P_D	225 1.8	mW mW / °C
Thermal Resistance Junction to Ambient	RθJA	556	°C / W
Total Device DissipationAlumina Substrate,[2] T_A = 25°C Derate above 25°C	P_D	300 2.4	mW mW / °C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	°C / W
Junction, Storage Temperature	T_J, T_{STG}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (at Ta = 25°C unless otherwise specified)

Parameters	Symbol	Min.	Max.	Unit	Test Conditions
Off Characteristics					
Reverse Voltage Leakage Current	I_R	- -	1.0 100	μA	V_R = 200 Vdc V_R = 200 Vdc, T_J = 150°C
Reverse Breakdown Voltage	$V_{(BR)}$	250	-	Vdc	I_{BR} = 100 μAdc
Forward Voltage	V_{F1}	-	1000	mV	I_F = 100 mA
	V_{F2}	-	1250		I_F = 200 mA
Diode Capacitance	C_D	-	5.0	pF	V_R = 0, f = 1MHz
Reverse Recovery Time	t_{RR}	-	50	nS	I_F = I_R = 30 mA, R_L=100Ω

1. FR - 5 = 1.0 x 0.75 x 0.062 in.
2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

RATINGS AND CHARACTERISTIC CURVES



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. t_p » t_{rr}

Figure 1. Recovery Time Equivalent Test Circuit

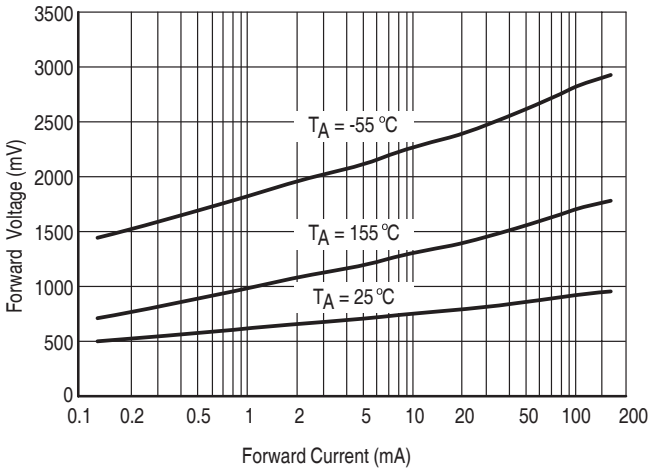


Figure 2. Forward Voltage

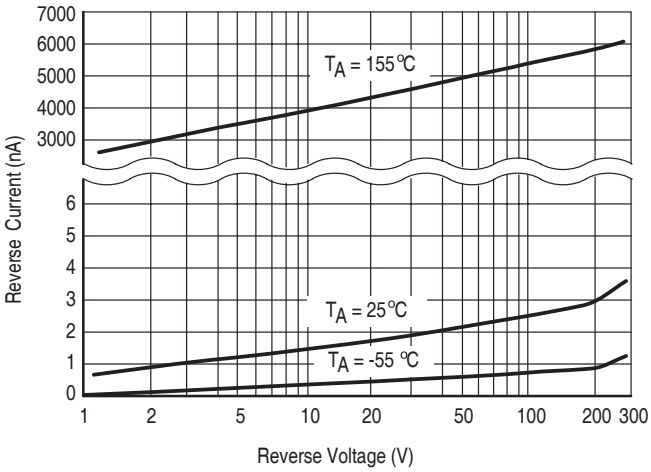


Figure 3. Reverse Leakage