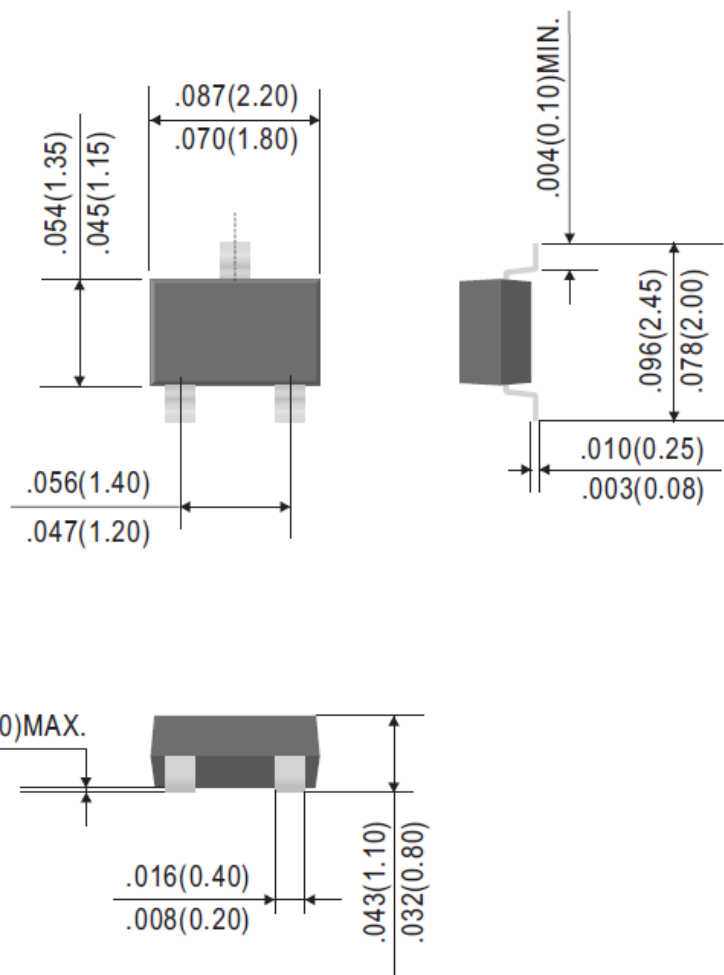
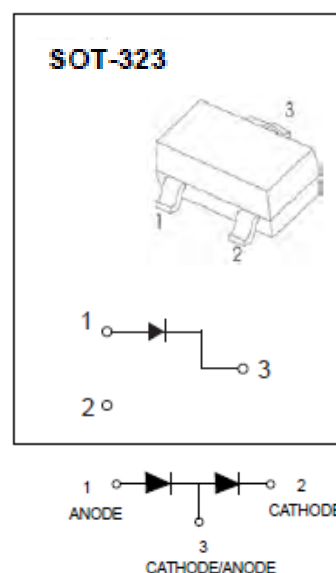




Dimensions in inches and (millimeters)



FEATURES

- Pb-Free package is available
- RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"
- Moisture Sensitivity Level 1

MARKING: MMBD7000W = M5C

Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)			
Rating	Symbol	Value	Unit
Reverse Voltage	V_R	100	Vdc
Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)			
Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board ⁽¹⁾ $T_A = 25^{\circ}\text{C}$ Derate above 25°C	P_D	200 1.6	mW mW/ $^{\circ}\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}\text{C/W}$
Total Device Dissipation Alumina Substrate ⁽²⁾ $T_A = 25^{\circ}\text{C}$ Derate above 25°C	P_D	300 2.4	mW mW/ $^{\circ}\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	$^{\circ}\text{C/W}$
Operating/ Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)				
Characteristic	Symbol	Min.	Max.	Unit
OFF Characteristics				
Reverse Breakdown Voltage ($I_{(BR)} = 100 \mu\text{Adc}$)	$V_{(BR)}$	100	—	Vdc
Reverse Voltage Leakage Current ($V_R = 50 \text{ Vdc}$) ($V_R = 100 \text{ Vdc}$) ($V_R = 50 \text{ Vdc}, 125^{\circ}\text{C}$)	I_R	— — —	1 3 100	μAdc
Forward Voltage ($I_F = 1.0 \text{ mAdc}$) ($I_F = 10 \text{ mAdc}$) ($I_F = 100 \text{ mAdc}$)	V_F	0.55 0.67 0.75	0.7 0.82 1.1	Vdc
Diode Capacitance ($V_R = 0\text{V}$)	C_T	—	1.5	pF
Reverse Recovery Time ($I_F = I_R = 10 \text{ mAdc}$) (Figure 1)	t_{rr}	—	4	ns

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.

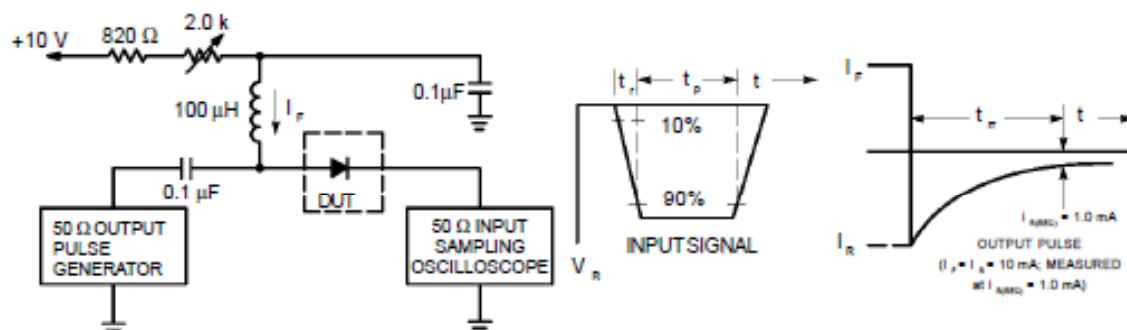


Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH CATHODE

