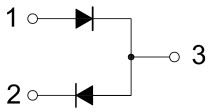
GOOD-ARK
SEMICONDUCTOR

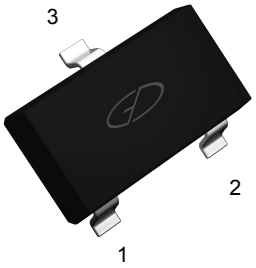
MMBD7000
Switching Diode

Features

- Dual switching diode
- Fast switching
- For general purpose switching applciations



Schematic Diagram



SOT-23

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

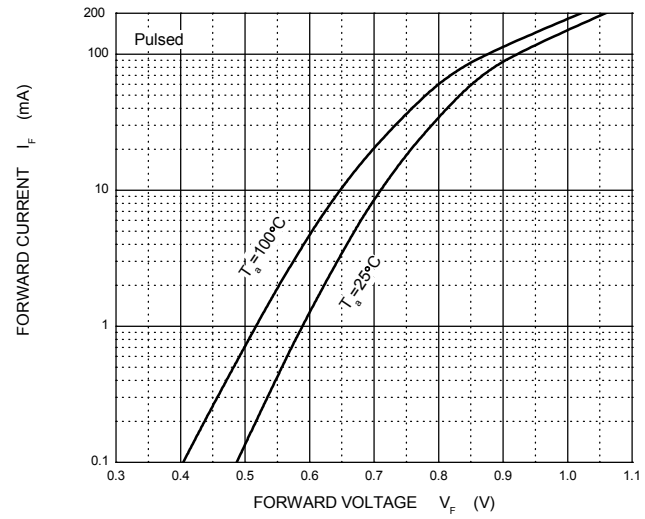
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage	V_{RRM} V_{RWM}	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t =8.3 ms	I_{FSM}	2	A
Power Dissipation	P_D	225	mW
Thermal Resistance,Junction to Ambient	$R_{\theta JA}$	556	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

Electrical Characteristics (T_A=25°C unless otherwise noted)

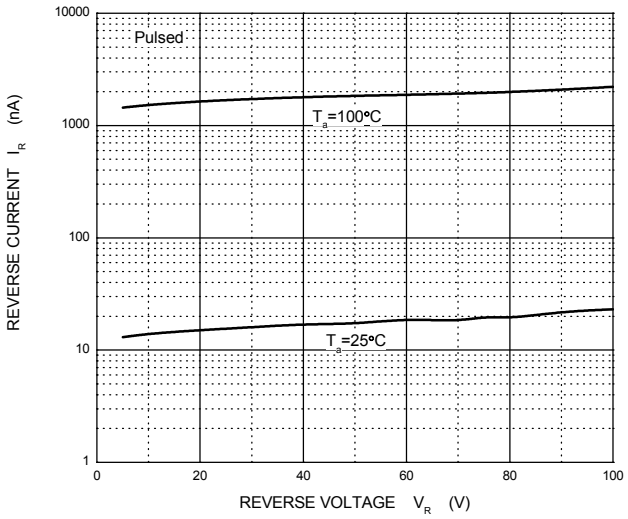
Parameter	Symbol	Test Conditions	Min	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=100μA	100	-	V
Reverse Voltage Leakage Current	I_R	V_R=50V V_R=100V	-	1.0 3.0	μA
Forward Voltage	V_F	I_F=1mA I_F=10mA I_F=100mA	0.55 0.67 0.75	0.7 0.82 1.1	V
Diode Capacitance	C_T	V_R=0V,f =1.0MHz	-	2	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, Irr=0.1 x IR,RL=100Ω	-	4	ns

Typical Electrical Characteristic Curves

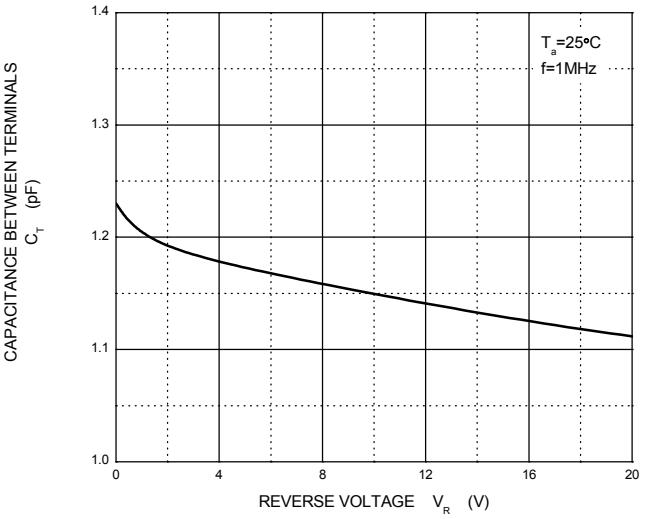
Forward Characteristics



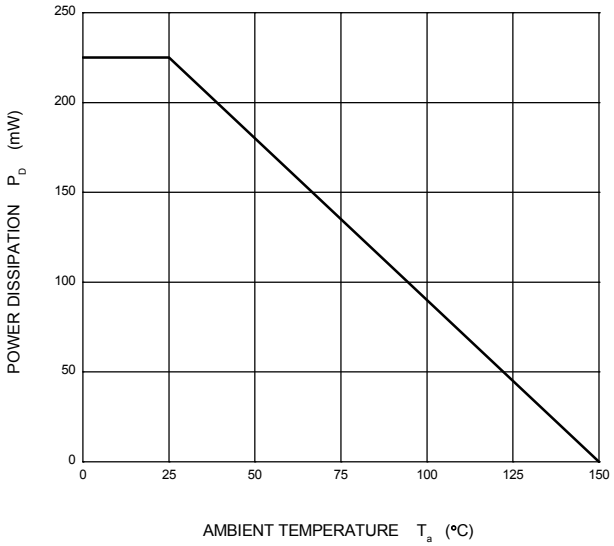
Reverse Characteristics



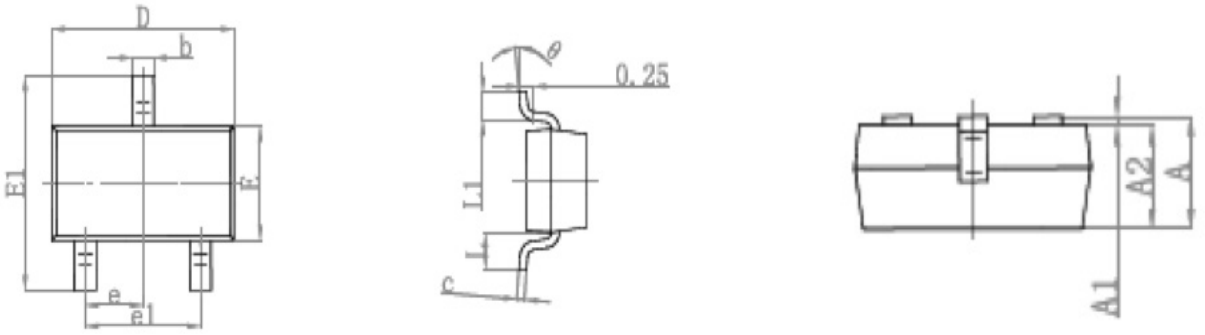
Capacitance Characteristics



Power Derating Curve

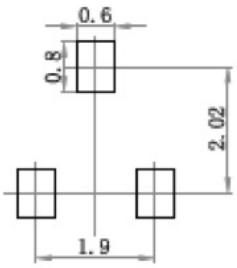


Package Outline Dimensions SOT-23



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.