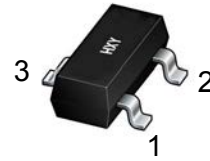


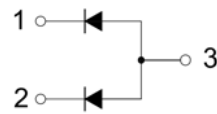


### Features

- Dual Switching Diode
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications



SOT-23



### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MMBD7000LY1G	SOT-23	M5C	3000

### Maxmim Ratings (Ta=25 unless otherwise noted)

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
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	°C/W
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{STG}$	-55~+150	°C

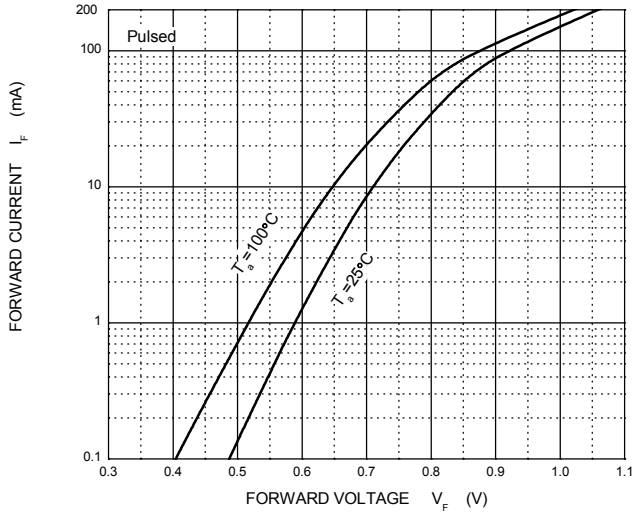
### Electrcal Characteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	100		V
Reverse voltage leakage current	$I_R$	$V_R=50V$ $V_R=100V$		1.0 3.0	$\mu A$
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	$t_{rr}$	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$		4	ns

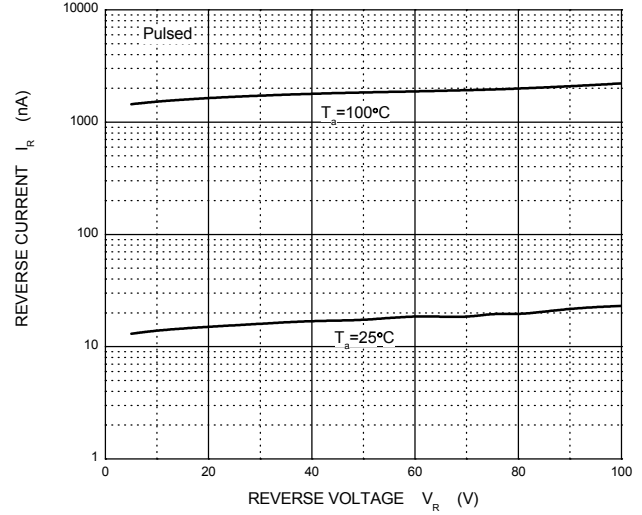


### Typical Characteristics

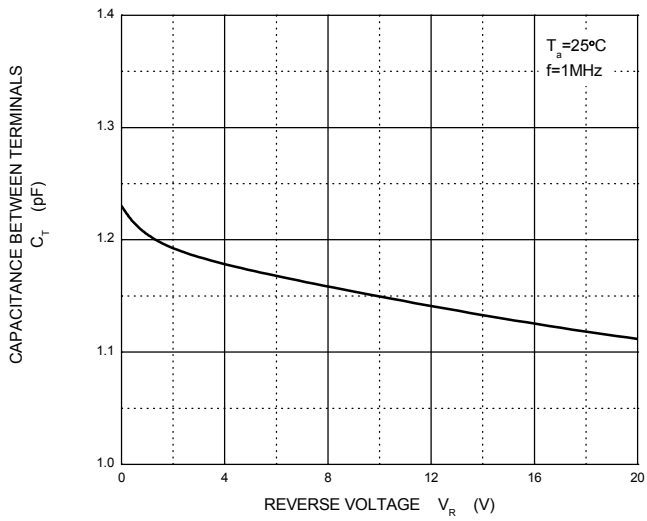
Forward Characteristics



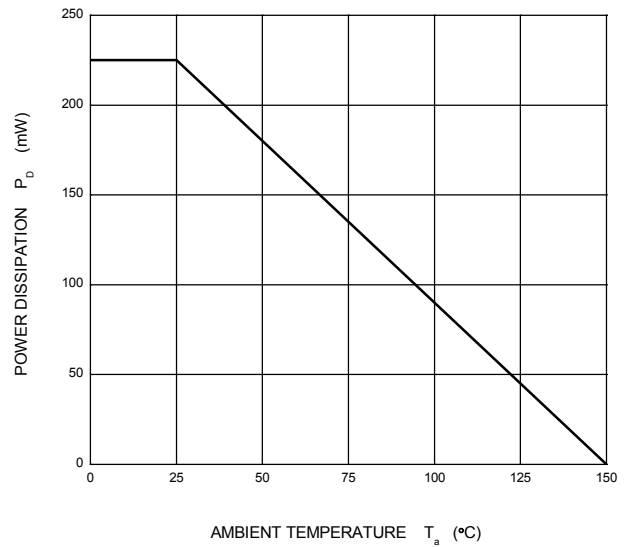
Reverse Characteristics



Capacitance Characteristics

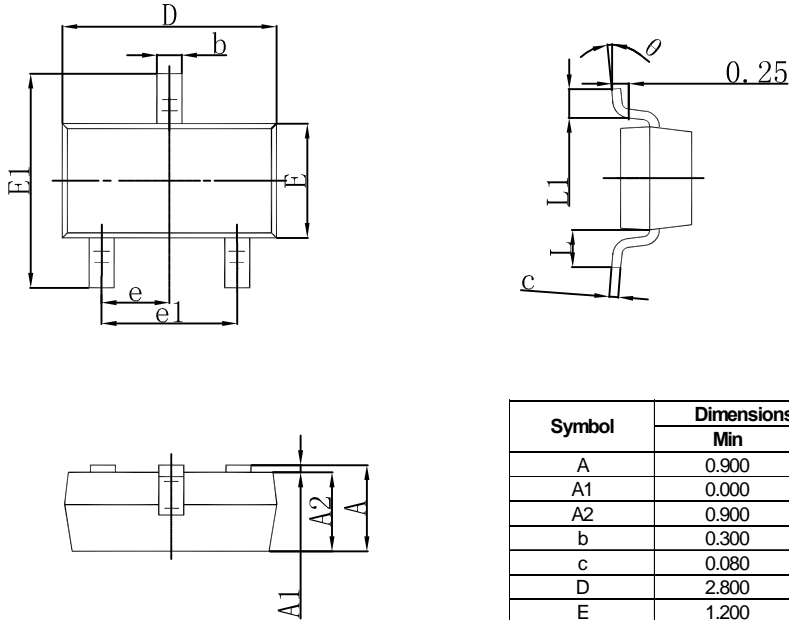


Power Derating Curve



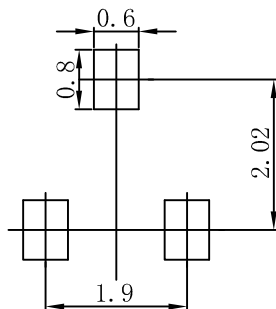


### SOT-23 Package Outline Dimensions



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°

### SOT-23 Suggested Pad Layout



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



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