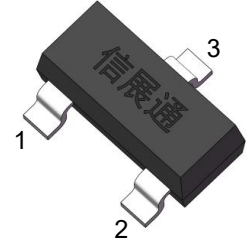




## FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

## SOT-23



## MARKING:

MMBD4148A:5H	MMBD4148CA:D6	MMBD4148CC:D5	MMBD4148SE:D4

MAXIMUM RATINGS (  $T_a=25^\circ\text{C}$  unless otherwise noted )

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	72	V
Forward Continuous Current	$I_{FM}$	300	mA
Average Rectified Output Current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	2.0	A
Power Dissipation	$P_D$	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Operation Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~+150	$^\circ\text{C}$

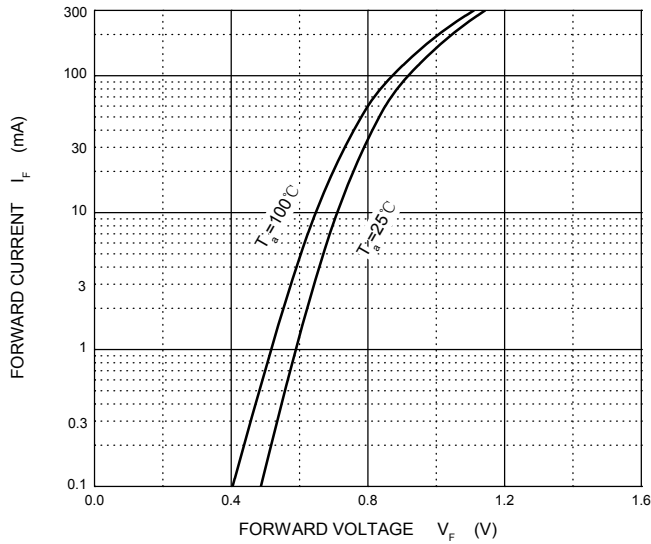
ELECTRICAL CHARACTERISTICS( $T_a=25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)1}$	100			V	$I_R=100\mu\text{A}$
	$V_{(BR)2}$	75			V	$I_R=5\mu\text{A}$
Forward voltage	$V_F$			1	V	$I_F=10\text{mA}$
Reverse current	$I_{R1}$			5	$\mu\text{A}$	$V_R=75\text{V}$
	$I_{R2}$			25	nA	$V_R=25\text{V}$
Capacitance between terminals	$C_T$			4	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse recovery time	$t_{rr}$			4	ns	$I_F=I_R=10\text{mA}, V_R=6\text{V}, I_{rr}=0.1 \times I_R, R_L=100\Omega$

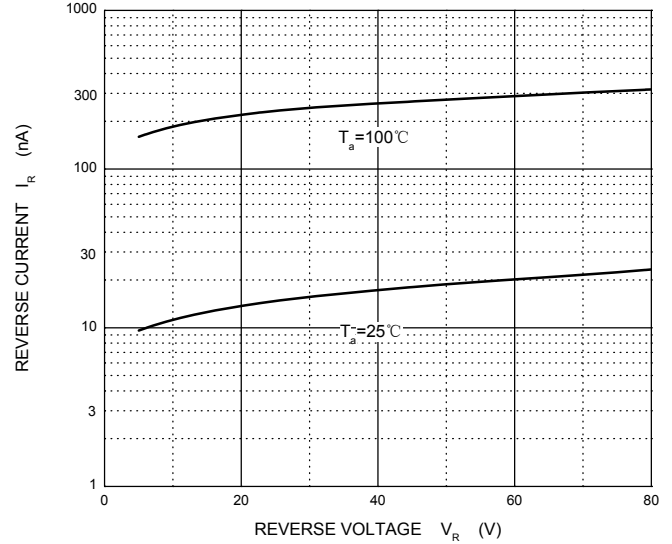


### Typical Characteristics

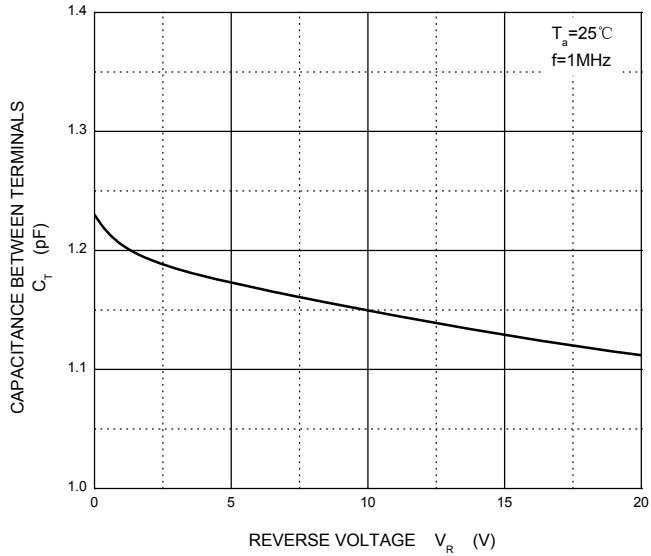
Forward Characteristics



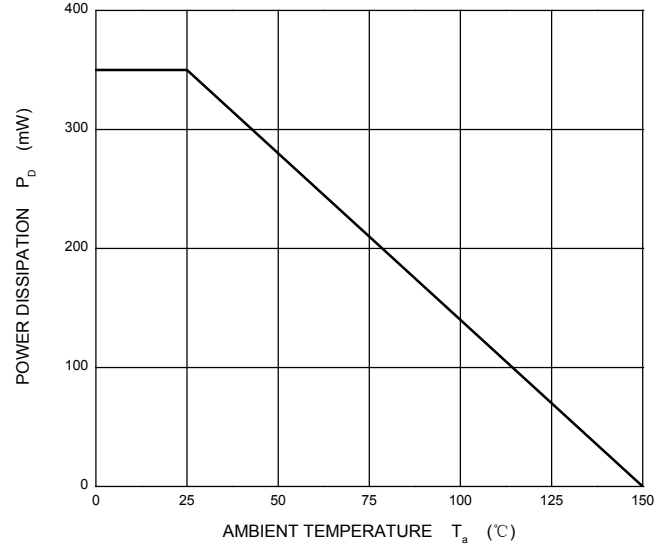
Reverse Characteristics



Capacitance Characteristics

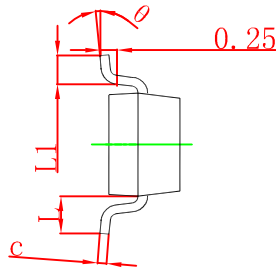


Power Derating Curve



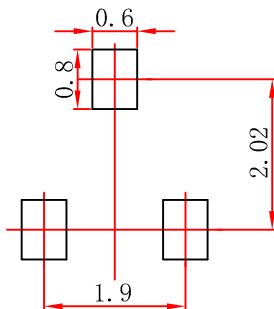


### SOT-23 Package Outline Dimensions



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: ± 0.05mm.
3. The pad layout is for reference purposes only.

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