

SOT-23 Plastic-Encapsulate Diodes

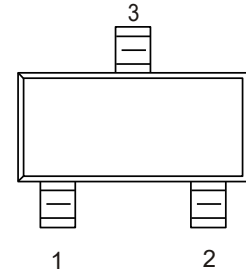
MMBD4148A/CA/CC/SE SWITCHING DIODE

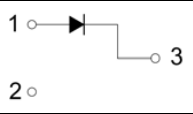
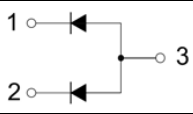
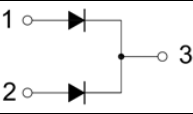
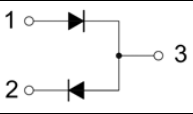
SOT-23

RoHS
COMPLIANT

Features

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



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

Maximum Ratings @Ta=25°C

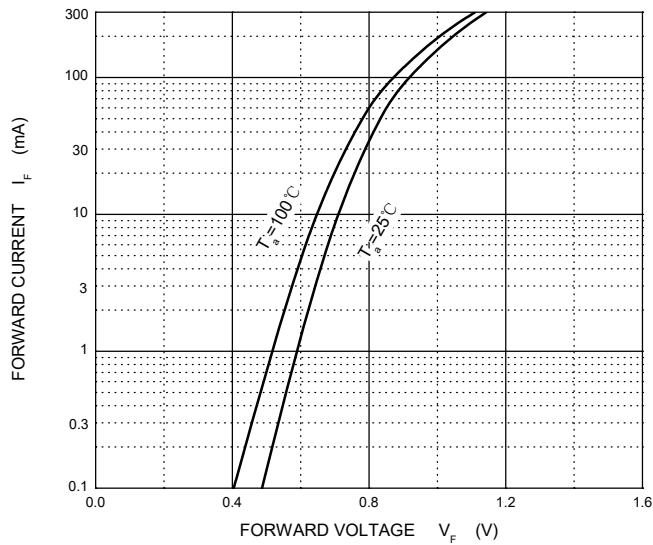
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	72	V
Average Rectified Output Current	I_O	200	mA
Forward Continuous Current	I_{FM}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

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

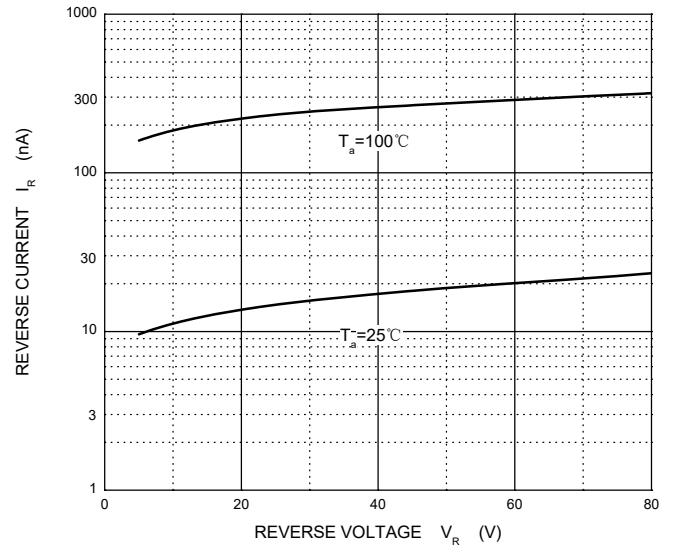
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)1}$	$I_R=100\mu A$	100			V
	$V_{(BR)2}$	$I_R=5\mu A$	75			V
Reverse current	I_{R1}	$V_R=75V$			5	μA
	I_{R2}	$V_R=25V$			25	nA
Forward voltage	V_F	$I_F=10mA$			1.0	V
Capacitance between terminals	C_T	$V_R=0V, f=1MHz$			4	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$			4	nS

Typical Characteristics

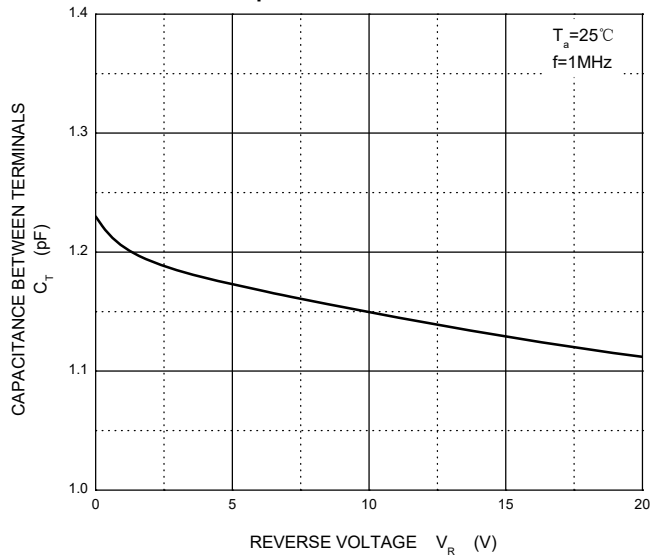
Forward Characteristics



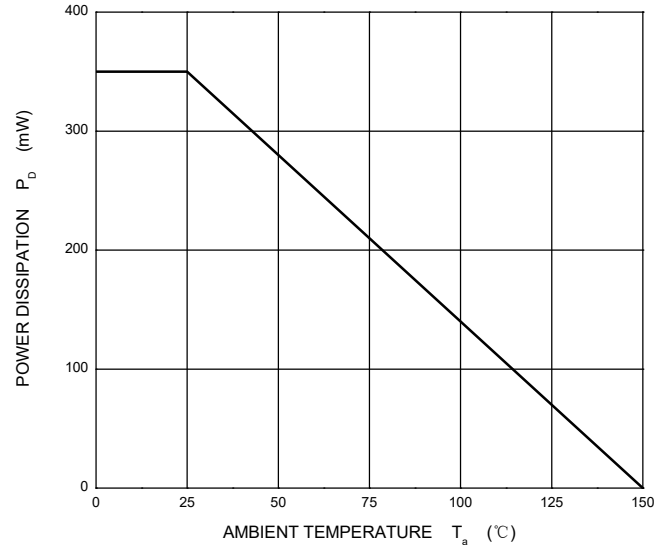
Reverse Characteristics



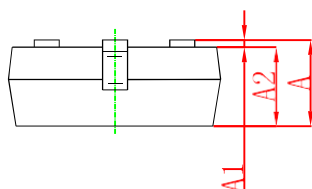
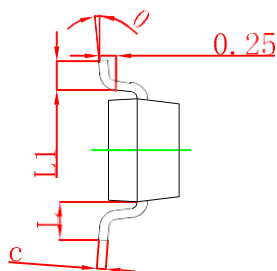
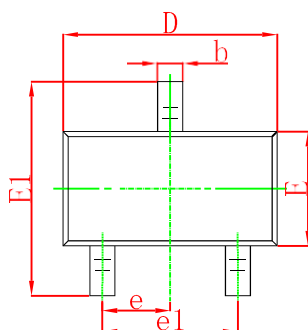
Capacitance Characteristics



Power Derating Curve

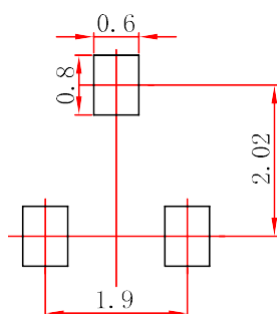


SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.400	0.035	0.055
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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.