



**THE DATASHEET OF  
MMBD4148WT-TP**



**Features**

- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

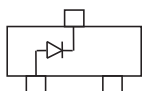
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance:625°C/W Junction to Ambient

MCC Part Number	Device Marking	Repetitive Peak Reverse Voltage $V_{RRM}$	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage $V_R$
BAS16WT	A2	75V	53V	75V
MMBD4148WT	A2	75V	53V	75V

Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100V	
Working Peak Reverse Voltage	$V_{RWM}$	75V	
Forward DC Current	$I_{FM}$	300mA	
Average Rectified Output Current	$I_o$	150mA	
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	2.0A	@t=8.3ms
Power Dissipation	$P_d$	200mW	

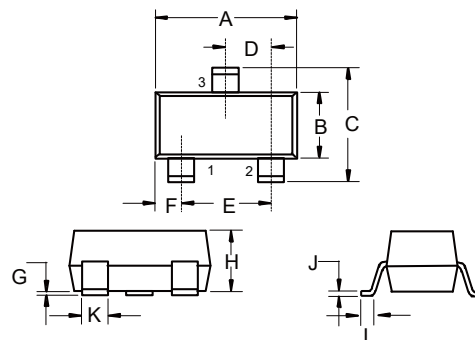
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure:**



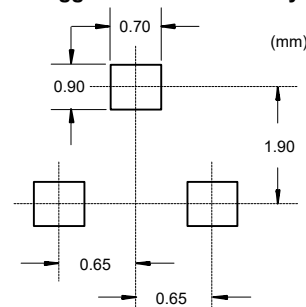
**200mW  
Switching Diode**

**SOT-323**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

**Suggested Solder Pad Layout**



Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Breakdown Voltage	$V_{BR}$	75V	$I_R=100.0\mu A$
Maximum Forward Voltage	$V_F$	0.715V 0.855V 1.000V 1.250V	$I_F=1.0mA$ $I_F=10.0mA$ $I_F=50.0mA$ $I_F=150.0mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.0 $\mu A$ 25nA	$V_R=75V$ $V_R=25V$
Diode Capacitance	$C_d$	2.0pF	$V_R=0.0V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	4.0ns	$I_F=10mA, I_R=10mA$ $I_{rr}=0.1 \cdot I_R$

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

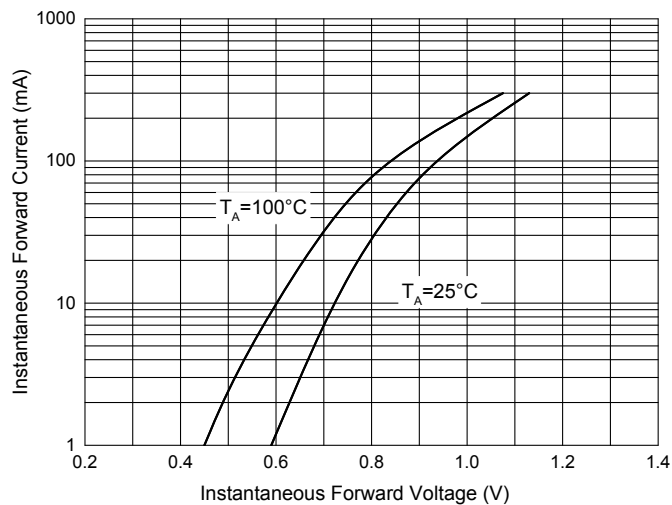


Fig. 2 - Typical Reverse Leakage Characteristics

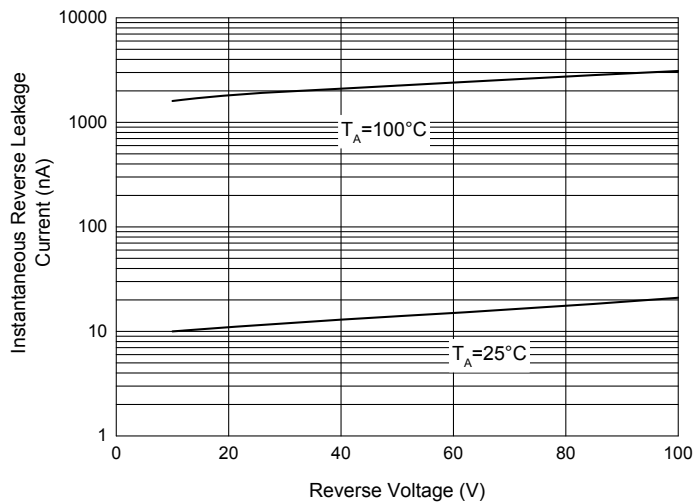
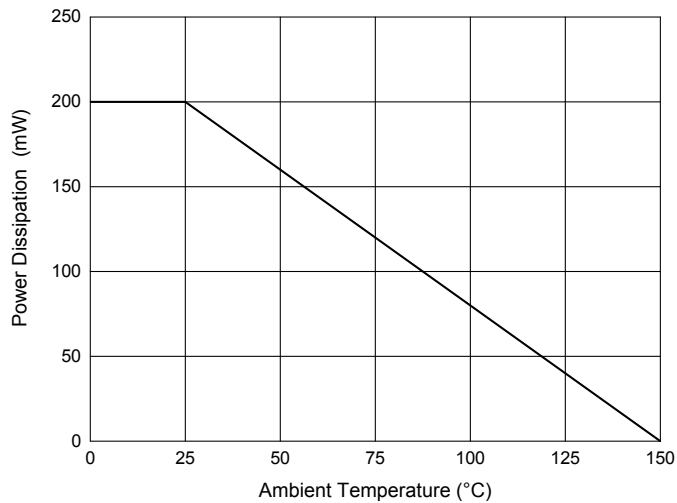


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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