

Features

- Low Leakage Current
- Fast Switching Speed
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- 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(Note2): 357°C/W Junction to Ambient

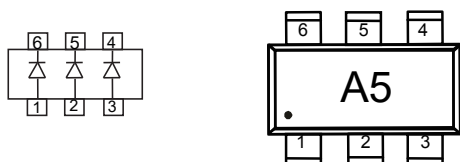
MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
MMBD4148TU	75V	53V	75V

Maximum Ratings @ 25°C Unless Otherwise Specified

Average Forward Current (Triple)	I_F	80mA	$T_A=25^\circ\text{C}$ (Note 2)
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1.5A 2A	@ $t=8.3\text{ms}$ @ $t=1\text{ms}$
Power Dissipation	P_{TOT}	350mW	$T_A=25^\circ\text{C}$

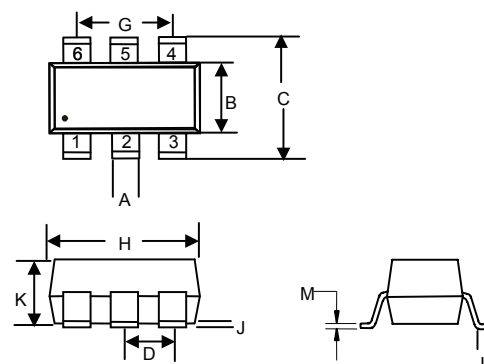
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code



350mW 75Volt Small Signal Diode

SOT23-6L



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.012	0.020	0.30	0.50	
B	0.051	0.070	1.30	1.80	
C	0.087	0.126	2.20	3.20	
D	0.037		0.95		TYP.
G	0.074		1.90		TYP.
H	0.106	0.122	2.70	3.10	
J	0.002	0.006	0.05	0.15	
K	0.030	0.051	0.75	1.30	
L	0.012	0.024	0.30	0.60	
M	0.003	0.008	0.08	0.22	

Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu A$	75			V
Forward Voltage	V_F	$I_F=10mA$			0.855	V
		$I_F=100mA$			1.2	V
Reverse Current	I_R	$V_R=20V$			25	nA
		$V_R=70V$			1	μA
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$			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

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

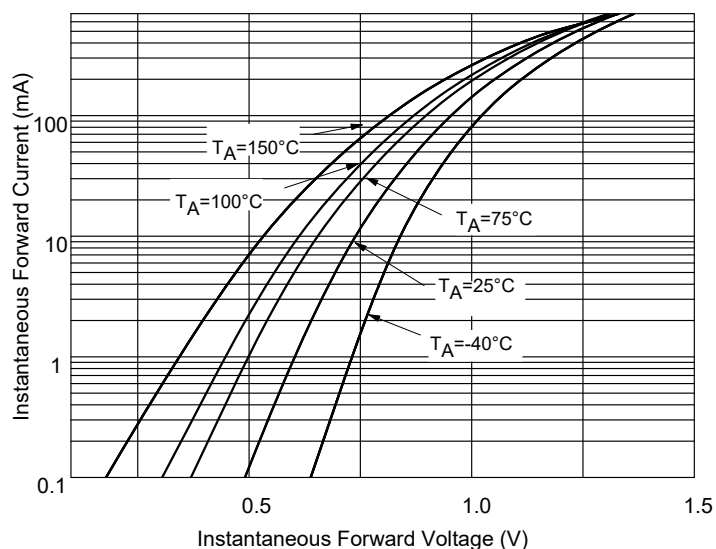


Fig. 2 - Typical Reverse Leakage Characteristics

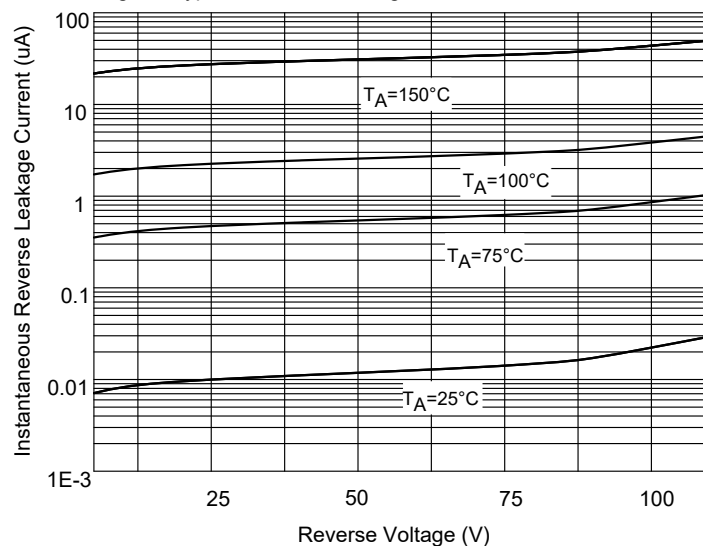


Fig. 3 - Capacitance Characteristics

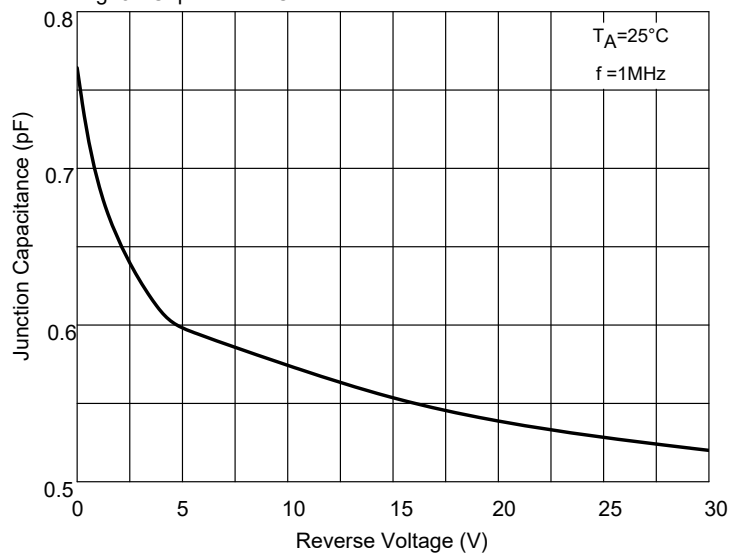
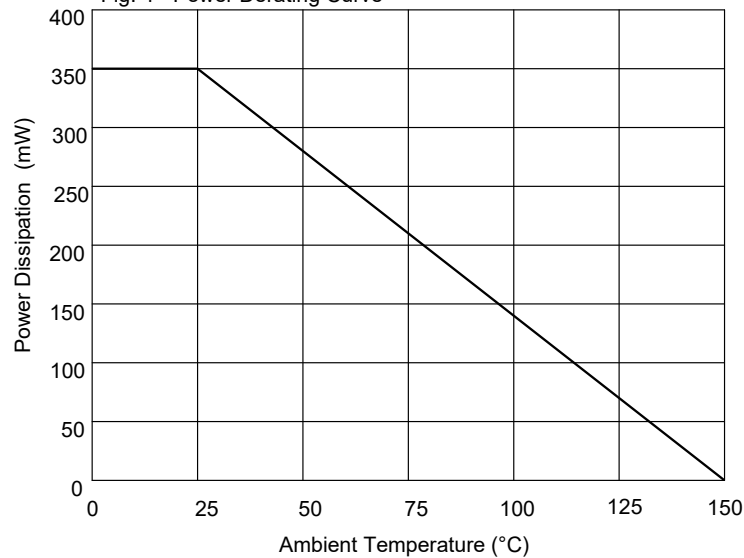


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
MMBD4148TU-TP	Tape&Reel: 3Kpcs/Reel

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