

**Features**

- Low Current Leakage
- Small Outline Surface Mount Package
- 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: 357°C/W Junction to Ambient

MCC Part Number	Device Marking	Reverse Voltage $V_R$	RMS Reverse Voltage $V_{R(RMS)}$
MMBD7000	M5C	100V	53V

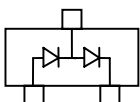
Average Rectified Output Current	$I_o$	200mA	
Peak Forward Surge Current	$I_{FSM}$	0.5A	t=1s, Non-Repetitive
Power Dissipation	$P_{TOT}$	350mW	

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Reverse Breakdown Voltage	$V_{BR}$	100V	$I_R=100\mu A$
Maximum Forward Voltage	$V_F$	820mV 1100mV	$I_{FM}=10.0mA$ $I_{FM}=100.0mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.0μA 100μA 3.0μA	$V_R=50V, T_j=25^\circ C$ $V_R=50V, T_j=125^\circ C$ $V_R=100V$
Maximum Junction Capacitance	$C_J$	2.0pF	$V_R=0.0V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	4.0ns	$I_F=10mA, I_R=10mA$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$

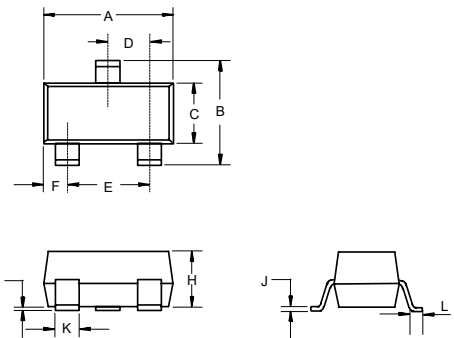
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure**



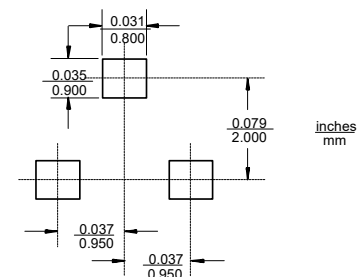
**350mW  
Dual Series  
Switching Diode**

**SOT-23**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

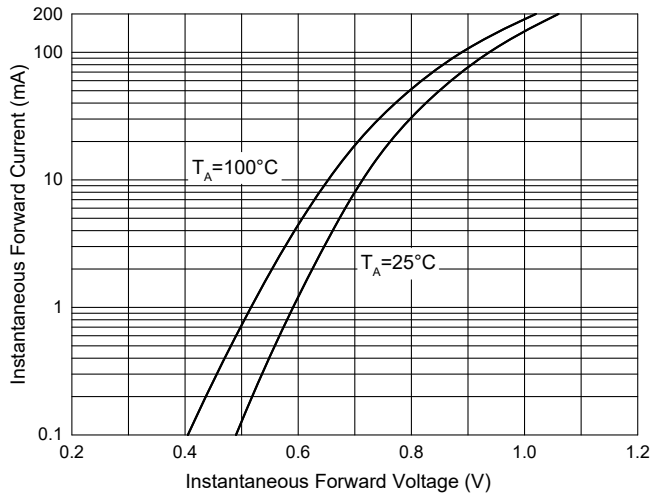


Fig. 2 - Typical Reverse Leakage Characteristics

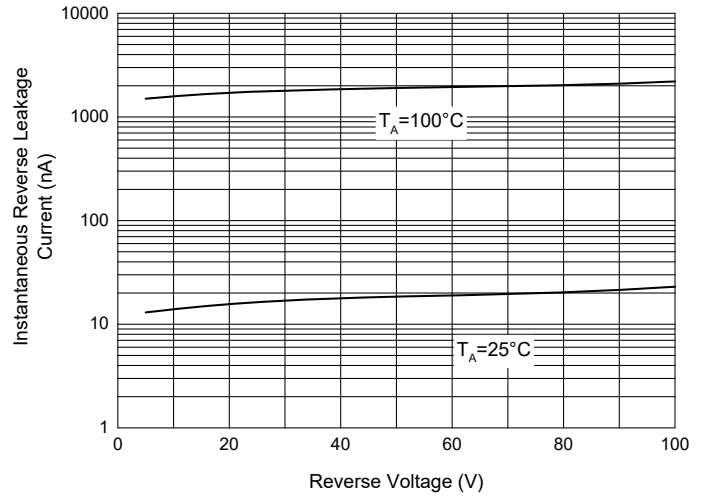
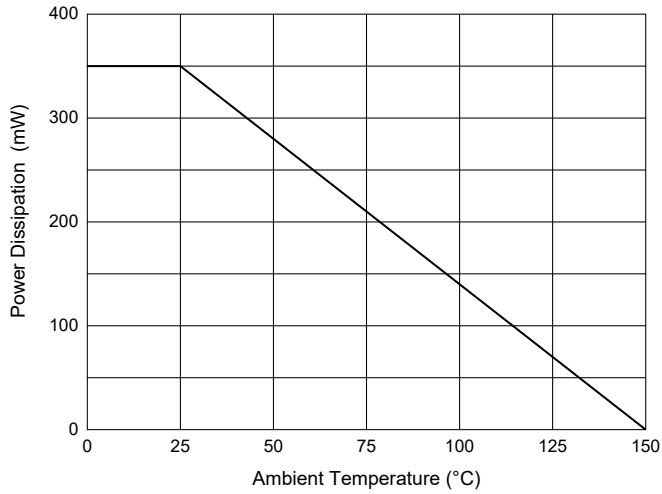


Fig. 3 - Power Derating Curve



## Ordering Information

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

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