

Features

- Low Current Leakage
- Small Outline Surface Mount Package
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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

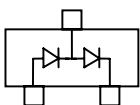
MCC Part Number	Device Marking	Reverse Voltage V_R	RMS Reverse Voltage $V_{R(RMS)}$
MMBD7000	M5C	100V	53V

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

Electrical Characteristics @ 25°C Unless Otherwise Specified

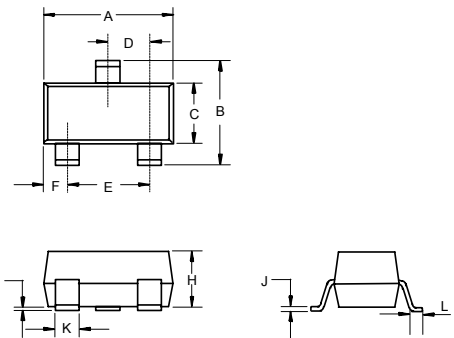
Reverse Breakdown Voltage	V_{BR}	100V	$I_R=100\mu A$
Maximum Forward Voltage	V_F	820mV 1100mV	$I_{FM}=10.0mA$ $I_{FM}=100.0mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1.0 μA 100 μA 3.0 μA	$V_R=50V, T_j=25^\circ C$ $V_R=50V, T_j=125^\circ C$ $V_R=100V$
Maximum Junction Capacitance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

Internal Structure



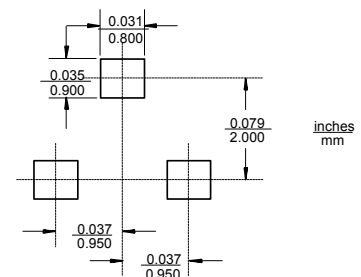
**350mW
Dual Series
Switching Diode**

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

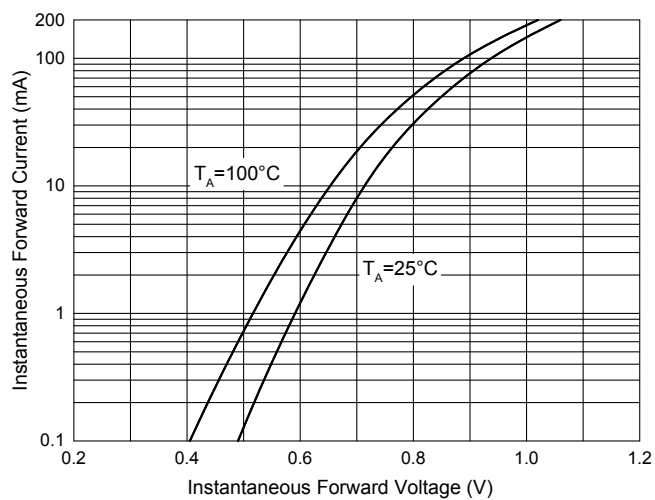


Fig. 2 - Typical Reverse Leakage Characteristics

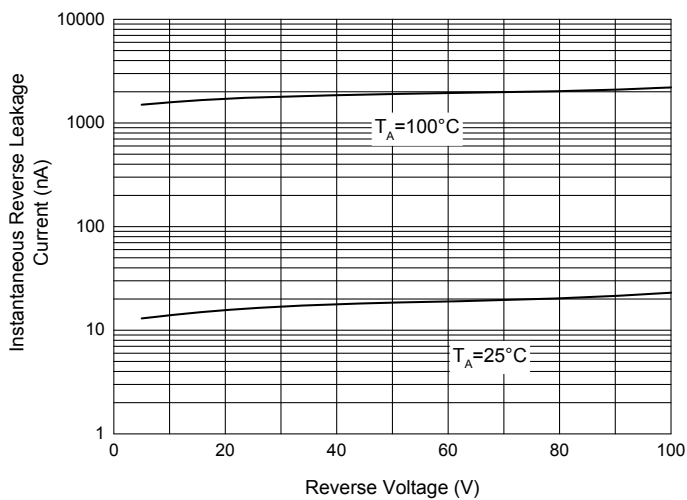
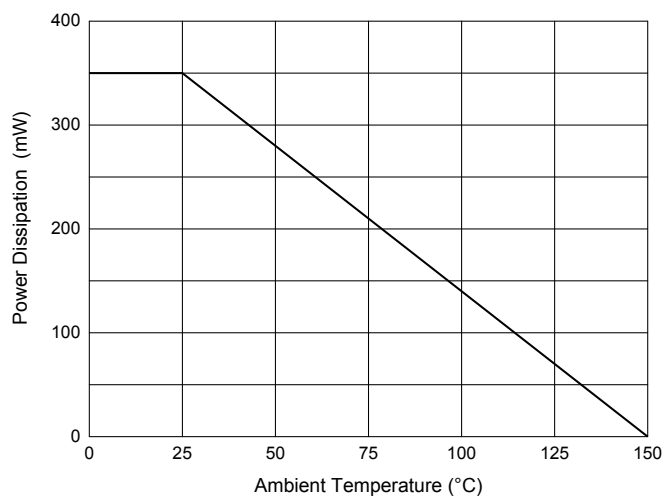


Fig. 3 - Power Derating Curve



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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