

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- 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(Note 2):357°C/W Junction to Ambient

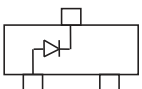
MCC Part Number	Device Marking	Peak Repetitive Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
MMBD4448	KA3	75V	53V	75V

Non-Repetitive Peak Reverse Voltage	V_{RM}	100V	
Working Peak Reverse Voltage	V_{RWM}	75V	
Forward Continuous Current	I_{FM}	500mA	Note 2
Average Rectified Output Current	I_o	250mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	2A 4A	@ $t \leq 1.0s$ @ $t = 1.0\mu s$
Power Dissipation	P_d	350mW	Note 2

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

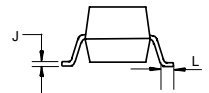
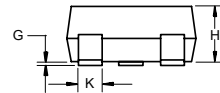
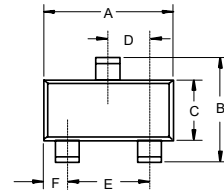
2. Valid provided that terminals are kept at ambient temperature

Internal Structure



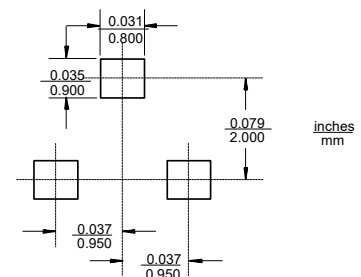
350mW Surface Mount Switching Diode

SOT-23



DIM	INCHES		MM		NOTE
	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



Electrical Characteristics @ 25°C Unless Otherwise Specified

Forward Voltage	V_{FM}	0.720V(Max.) 0.855V(Max.) 1.000V(Max.) 1.250V(Max.)	$I_F=5.0mA$ $I_F=10.0mA$ $I_F=100.0mA$ $I_F=150.0mA$
		0.620V(Min.)	$I_F=5.0mA$
Maximum Peak Reverse Current	I_{RM}	2.5 μA 50 μA 30 μA 25nA	$V_R=75V$ $V_R=75V, T_j=150^\circ C$ $V_R=25V, T_j=150^\circ C$ $V_R=20V$
Maximum Junction Capacitance	C_J	4.0pF	$V_R=0.0V, f=1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	4.0ns	$I_F=10mA, I_R=10mA$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

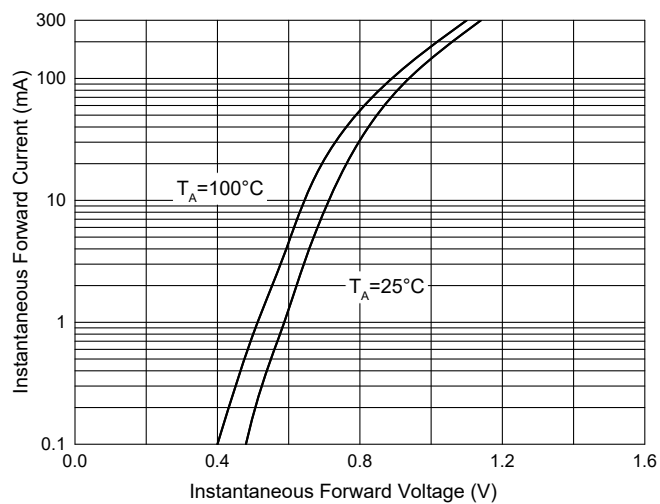


Fig. 2 - Typical Reverse Leakage Characteristics

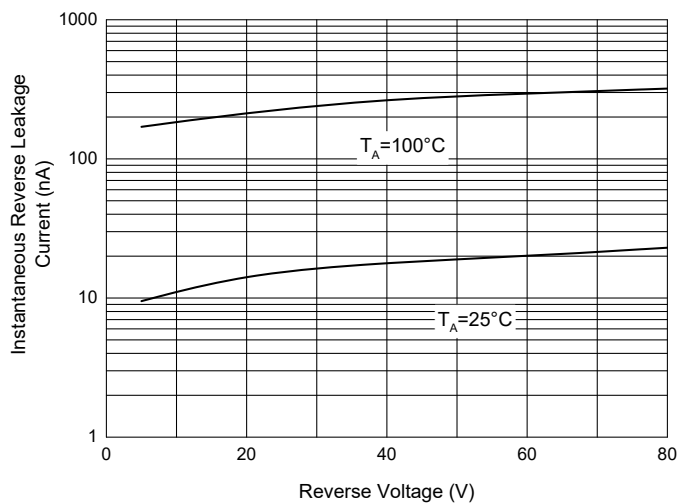
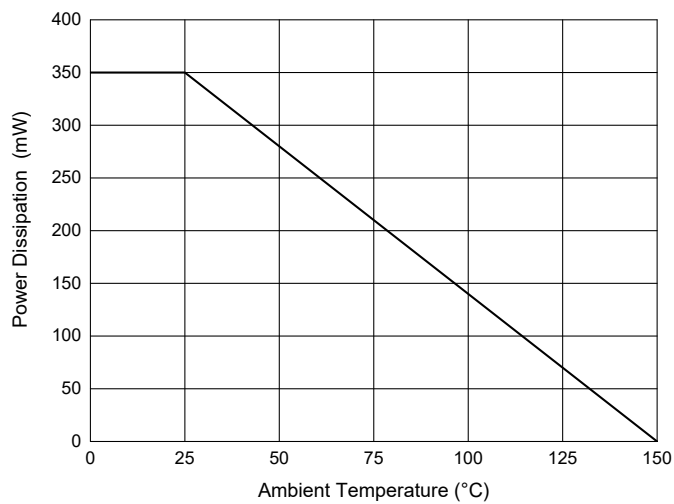


Fig. 3 - Power Derating Curve



Ordering Information

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

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