



THE DATASHEET OF MMBD2004SWT-TP



Features

- Low Current Leakage
- Small Outline Surface Mount Package
- Designed For Applications Requiring High Voltage Capability
- 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

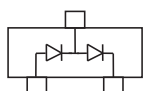
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking	Peak Reverse Voltage V_{RM}	DC Blocking Voltage V_R
MMBD2004SWT	B6D	300V	240V

Continuous Forward Current	I_F	225mA	
Forward Surge Current	I_{FSM}	4.0A 1.0A	@t=1us @t=1s
Repetitive Peak Forward Current	I_{FRM}	625mA	
Power Dissipation	P_D	250mW	

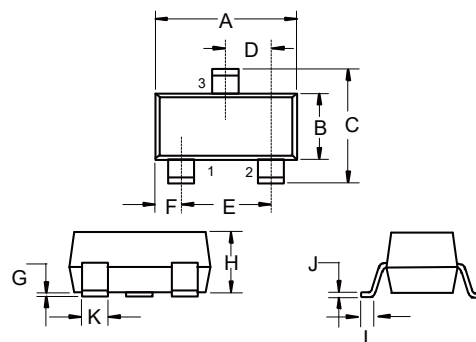
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



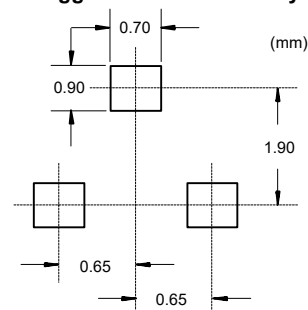
250mW 300Volt Dual Series Switching Diode

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

Minimum Breakdown Voltage	V_{BR}	240V	$I_R=100.0\mu A$
Maximum Instantaneous Forward Voltage	V_F	1.000V	$I_F=100.0mA$
Maximum Reverse voltage leakage current	I_R	0.1 μA	$V_R=240V$
Maximum Diode Capacitance	C_D	5.0pF	$V_R=0.0V, f=1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	50.0ns	$I_F=30mA, I_R=30mA$ $R_L=100\Omega$

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

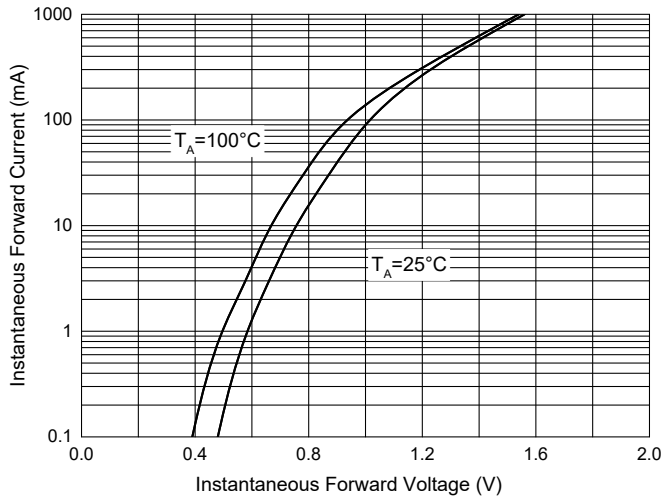


Fig. 2 - Typical Reverse Leakage Characteristics

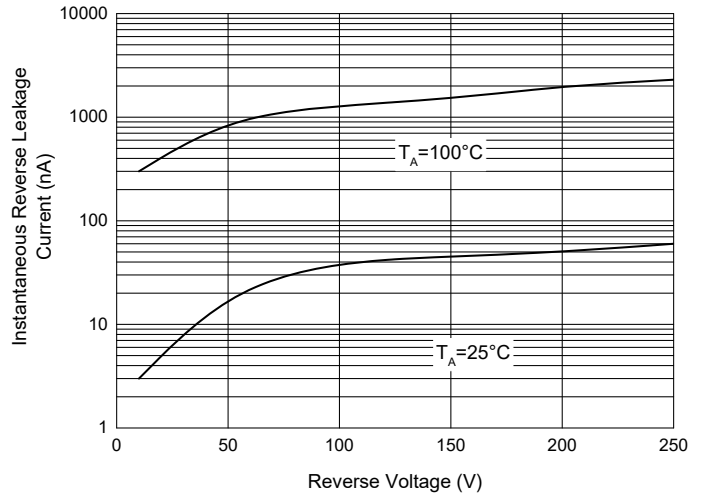
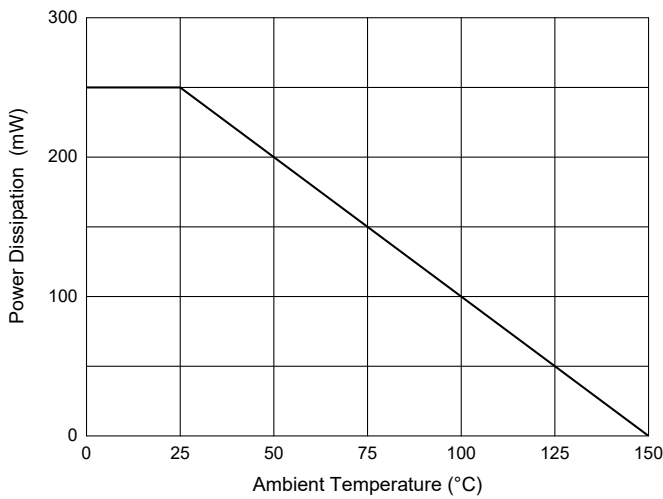


Fig. 3 - Power Derating Curve



Ordering Information

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

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