

MMBD4448WT

Features

- Fast Switching Speed
- Halogen free available upon request by adding suffix "-HF"
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Polarity: See Diagram
- Marking: KA3

Maximum Ratings @ 25°C Unless Otherwise Specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Volt.	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current(Note1)	I_{FM}	500	mA
Average Rectified Output Current	I_o	250	mA
Non-Repetitive Peak @ $t \leq 1.0s$	I_{FSM}	2	A
Forward Surge Current @ $t = 1.0us$		4	A
Power Dissipation(Note 1)	P_d	200	mW
Thermal Resistance(Note 1)	R_{thja}	625	K/W
Operation/Storage Temp. Range	T_j, T_{STG}	-55 to +150	°C

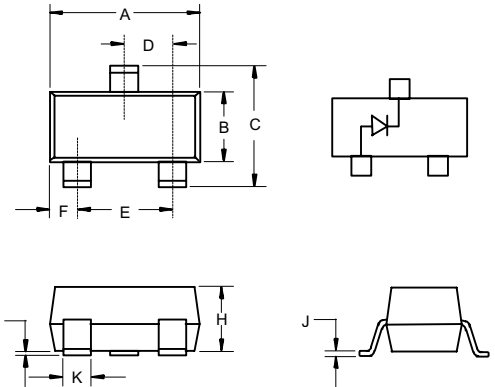
Electrical Characteristics @ 25°C Unless Otherwise Specified

Charateristic	Symbol	Min	Max	Unit	Test Cond.
Maximum Forward Voltage Drop	V_{FM}	0.62	0.72	V	$I_F = 5.0mA$
		-----	0.855		$I_F = 10mA$
			1		$I_F = 100mA$
			1.25		$I_F = 150mA$
Maximum Peak Reverse Current	I_{RM}	-----	2.5	uA	$V_R = 75V$
			50		$V_R = 75V T_j = 150^\circ C$
			30		$V_R = 25V T_j = 150^\circ C$
			25		$V_R = 20V$
Junction Capacitance	C_j	-----	4	pF	$V_R = 0V, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	-----	4	ns	

Note: 1. Valid provided that terminals are kept at ambient temperature
2. T_{rr} Test Condition: $I_F = I_R = 10mA, I_{rr} = 0.1 * I_R, R = 100 OHM$

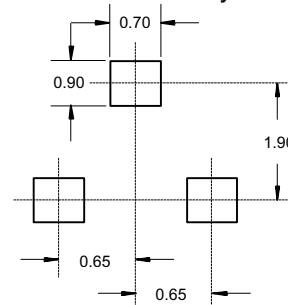
Surface Mount Switching Diode 200mW

SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.087	2.00	2.20	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.003	.006	.08	.15	
K	.008	.016	.20	.40	

Suggested Solder Pad Layout



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Figure 1
Typical Forward Characteristics

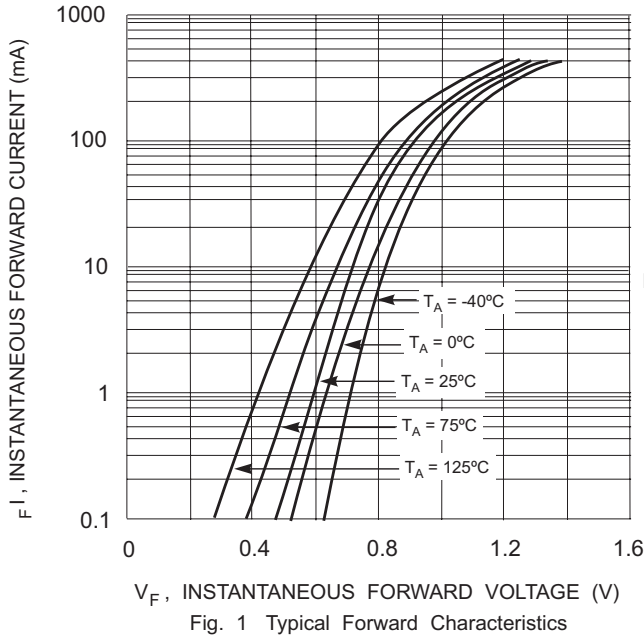


Figure 2
Forward Derating Curve

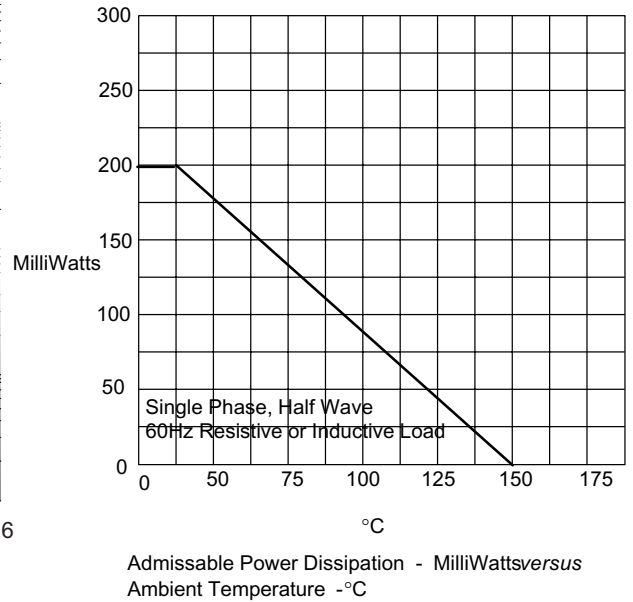
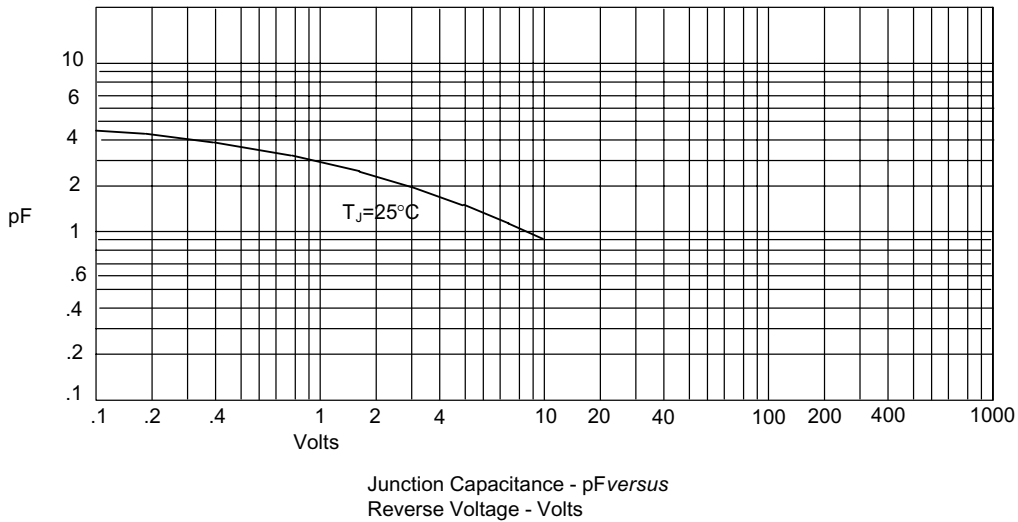


Figure 3
Junction Capacitance



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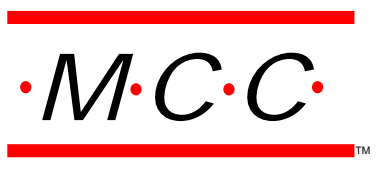
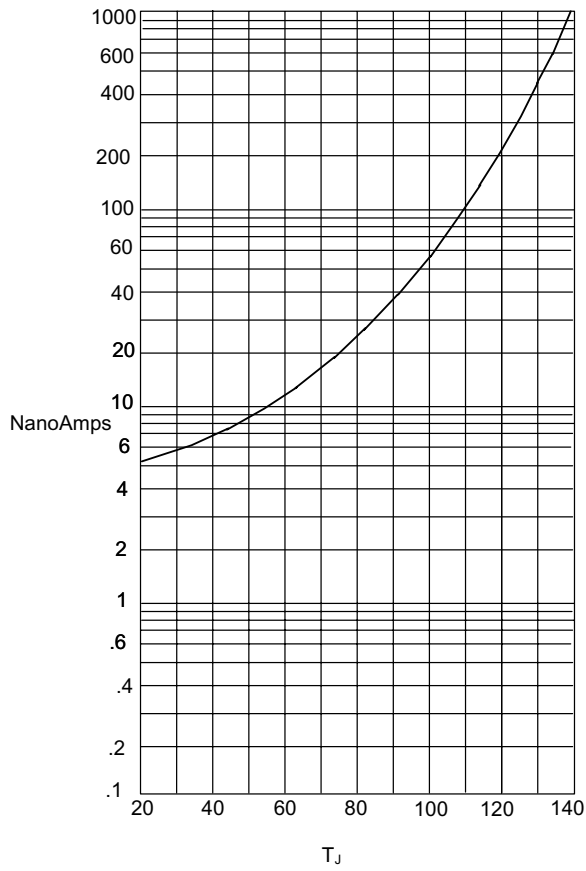


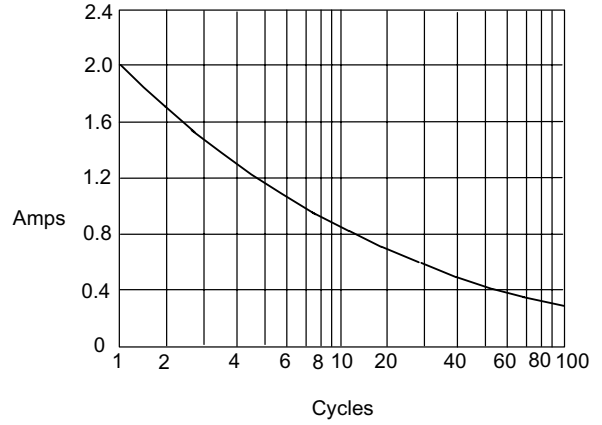
Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus Junction Temperature - °C

T_A=25°C

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles



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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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