

MMBD4448WT

Surface Mount Switching Diode 200mW

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Polarity: See Diagram
- Marking: KA3

Maximum Ratings @ 25°C Unless Otherwise Specified

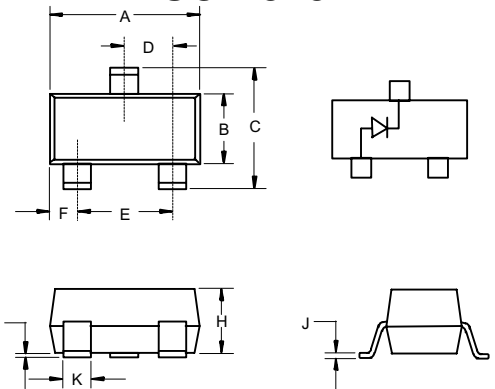
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Volt.	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current(Note1)	I_{FM}	500	mA
Average Rectified Output 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	$I_F = 5.0mA$ $I_F = 10mA$ $I_F = 100mA$ $I_F = 150mA$
		-----	0.855		
		-----	1		
		-----	1.25		
Maximum Peak Reverse Current	I_{RM}	-----	2.5	uA	$V_R = 75V$
		-----	50	uA	$V_R = 75V T_j = 150^\circ C$
		-----	30	uA	$V_R = 25V T_j = 150^\circ C$
		-----	25	nA	$V_R = 20V$
Junction Capacitance	C_j	-----	4	pF	$V_R = 0V, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	-----	4	ns	

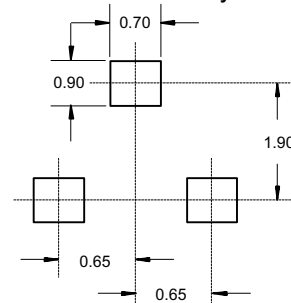
- Note: 1. Valid provided that terminals are kept at ambient temperature
2. T_{rr} Test Condition: $I_F = I_R = 10mA, I_{rr} = 0.1 * I_R, R = 100 OHM$

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



MMBD4448WT

Figure 1
Typical Forward Characteristics

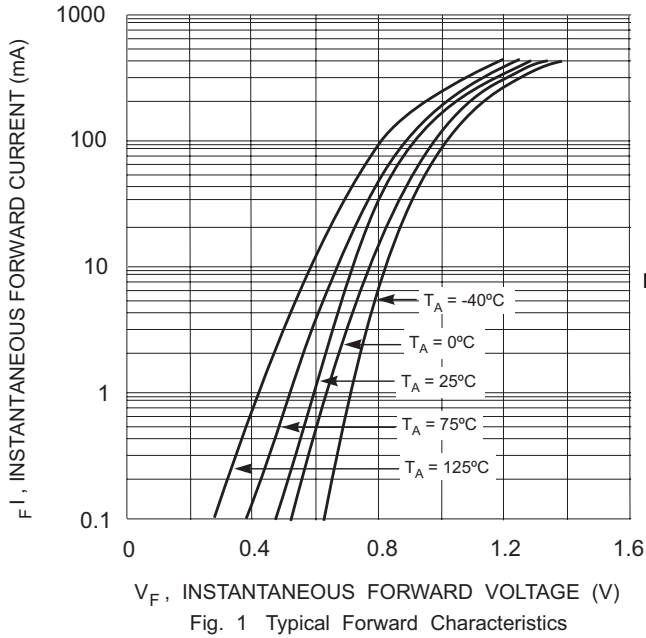


Figure 2
Forward Derating Curve

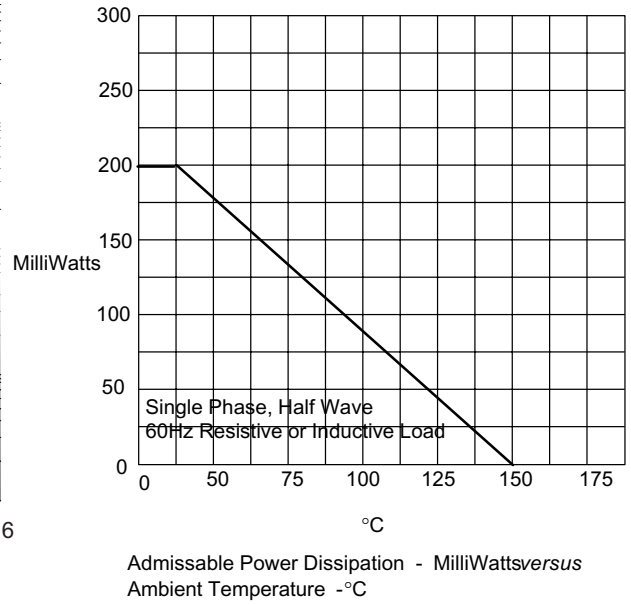
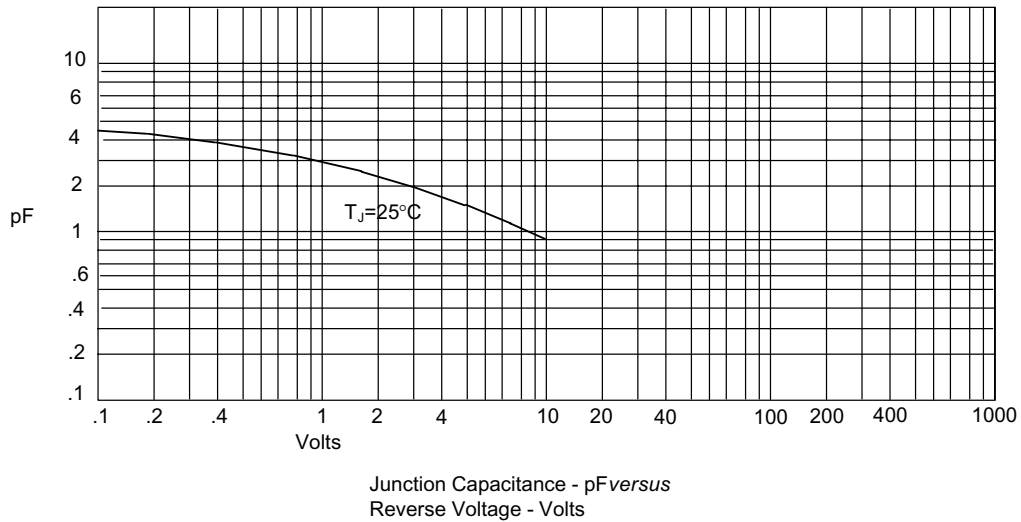
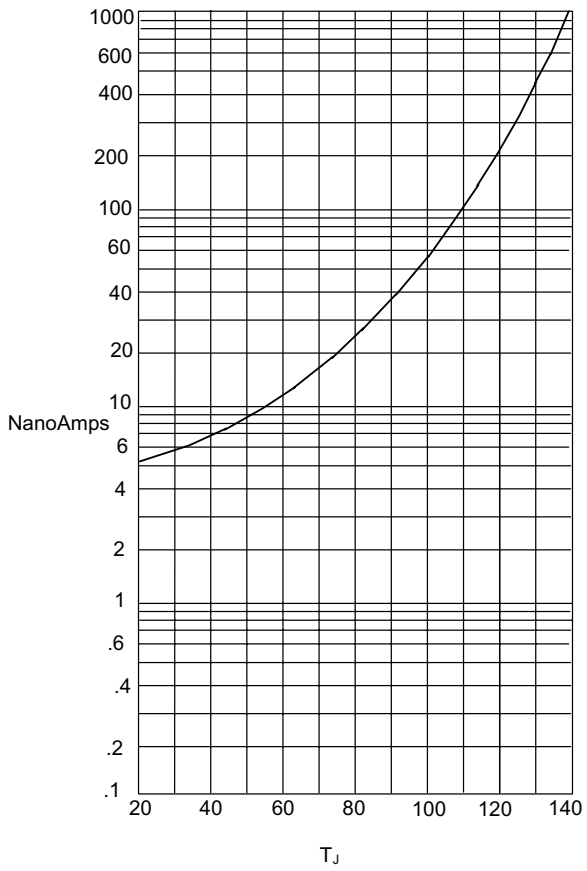


Figure 3
Junction Capacitance



MMBD4448WT

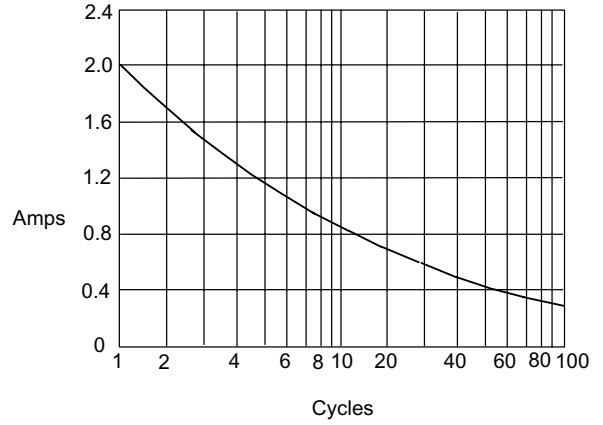
Figure 4
Typical Reverse Characteristics



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

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

■

■

■

■

■
