

MMBD4448

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

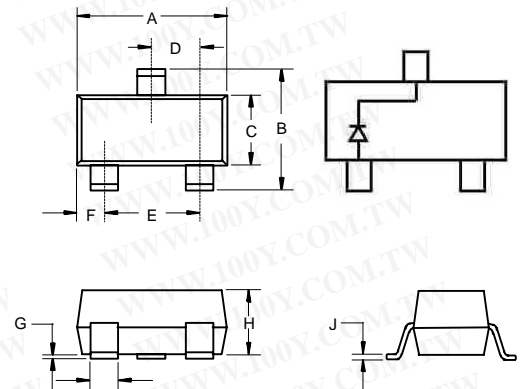
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Volt.	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current(Note1)	I_{FM}	500	mA
Average Rectified Output 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	350	mW
Thermal Resistance(Note 1)	R	357	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	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	

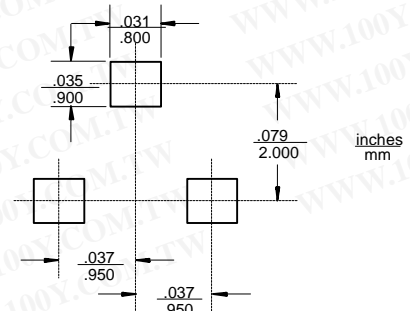
Surface Mount Switching Diode 350mW

SOT-23



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



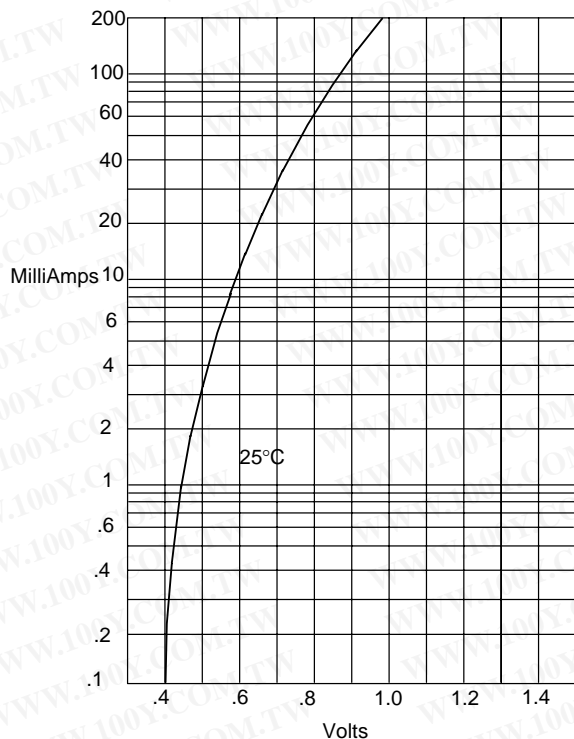
Note: 1. Valid provided that terminals are kept at ambient temperature
2. Trr Test Condition: $I_F = I_R = 10mA$, $I_{rr} = 0.1 \cdot I_R$, $R = 100 \text{ OHM}$

MMBD4448

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

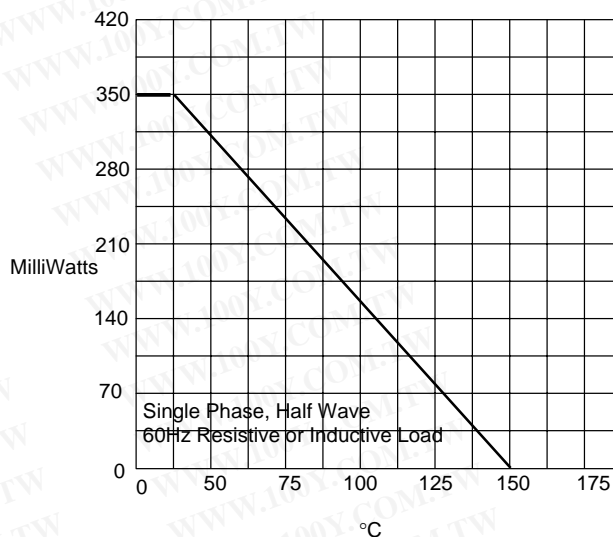


Figure 1
 Typical Forward Characteristics



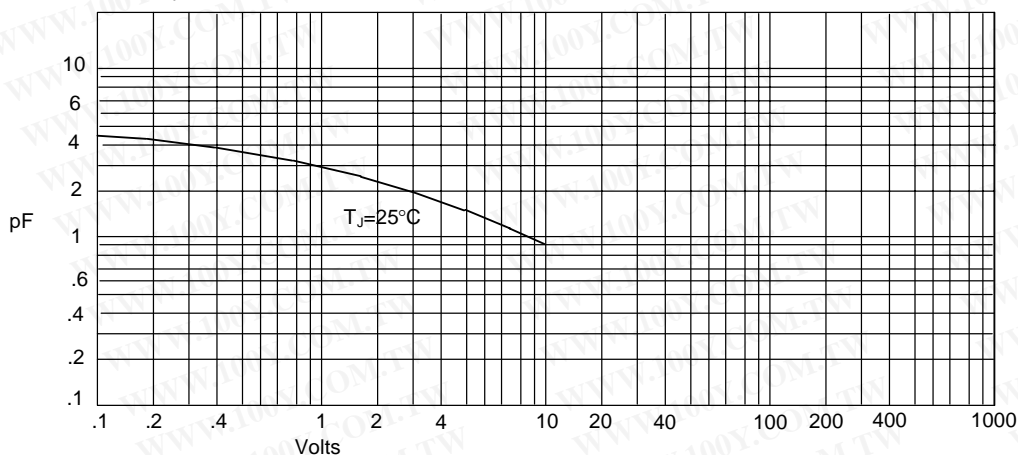
Instantaneous Forward Current - Amperes versus
 Instantaneous Forward Voltage - Volts

Figure 2
 Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus
 Ambient Temperature - °C

Figure 3
 Junction Capacitance

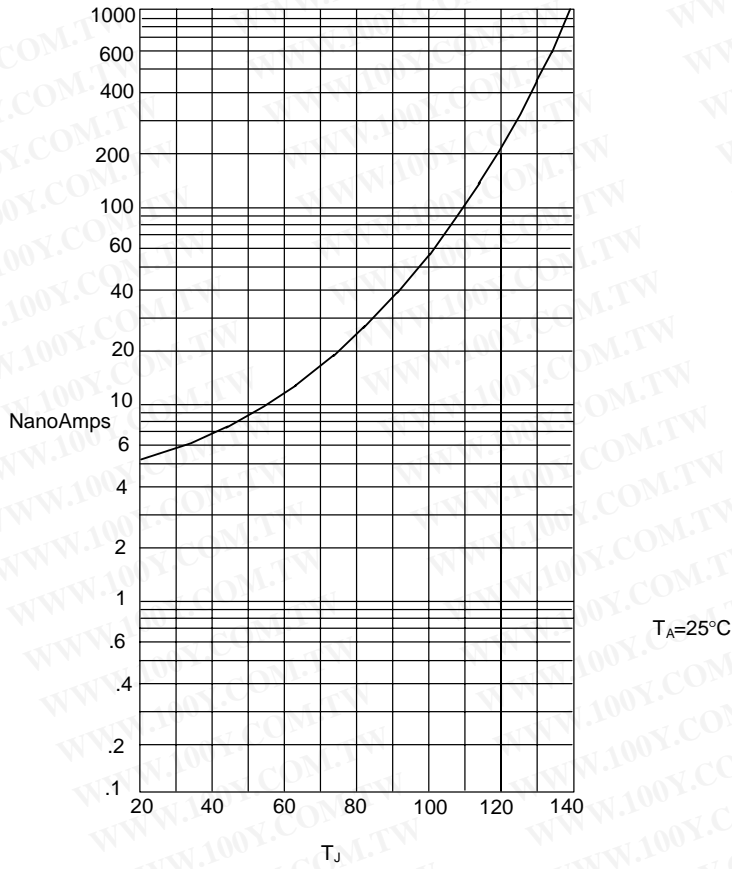


Junction Capacitance - pF versus
 Reverse Voltage - Volts

MMBD4448

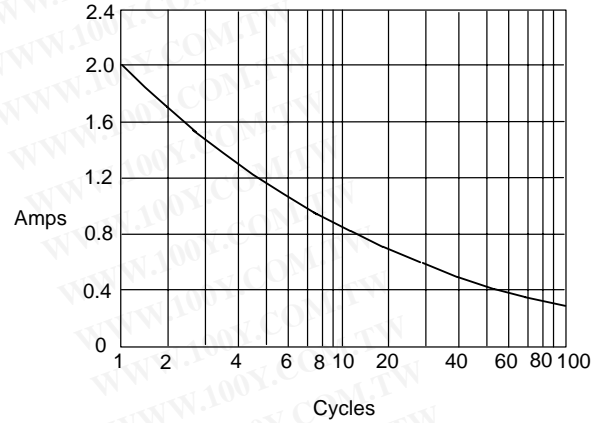


Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmpere versus
Junction Temperature - $^{\circ}\text{C}$

Figure 5
Peak Forward Surge Current



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



Micro Commercial Components

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-54151736
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Ordering Information

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

APPLICATIONS DISCLAIMER

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.

www.mccsemi.com