



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





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

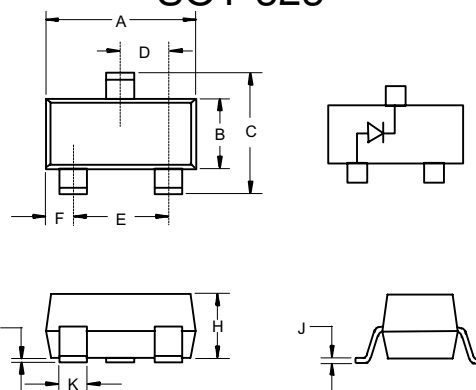
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Volt.	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current(Note1)	I_{FM}	500	mA
Average Rectified Output 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	$I_F = 5.0mA$
		-----	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	

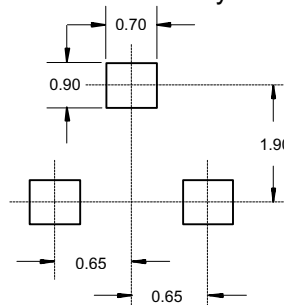
Surface Mount Switching Diode 200mW

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		0.65 Nominal		
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



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

MMBD4448WT

Figure 1
Typical Forward Characteristics

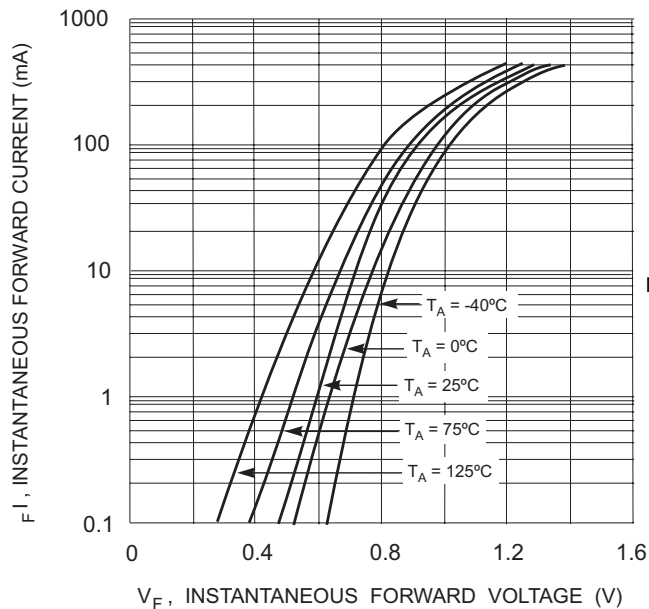
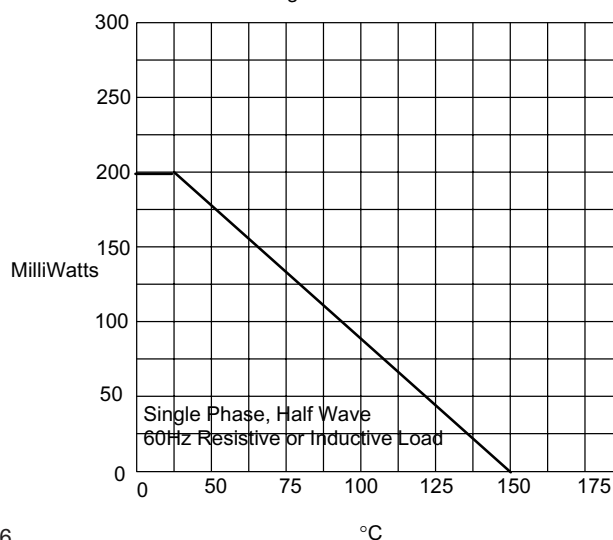


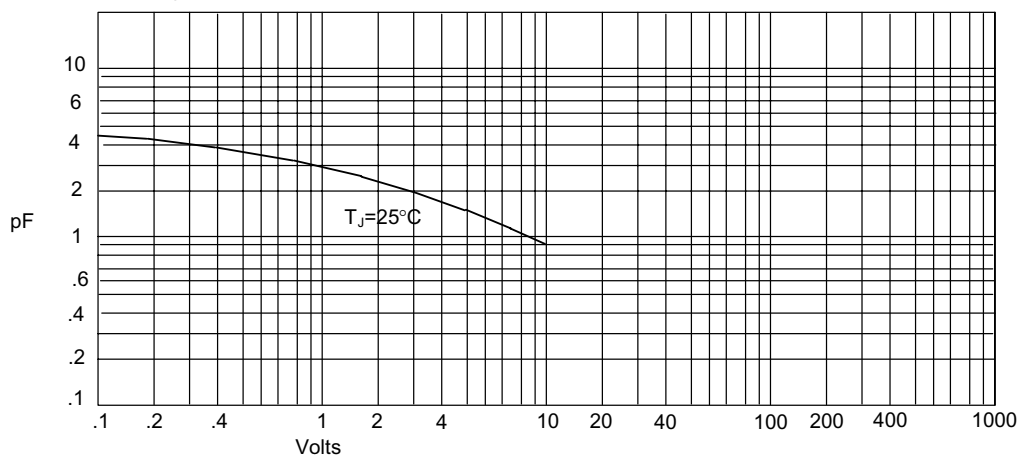
Fig. 1 Typical Forward Characteristics

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus Ambient Temperature - $^{\circ}\text{C}$

Figure 3
Junction Capacitance



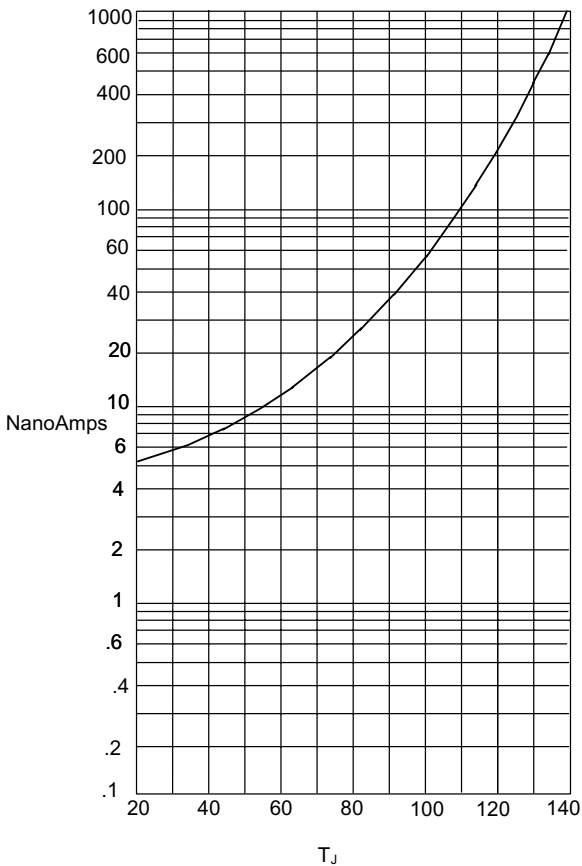
Junction Capacitance - pF versus Reverse Voltage - Volts

MMBD4448WT



Micro Commercial Components

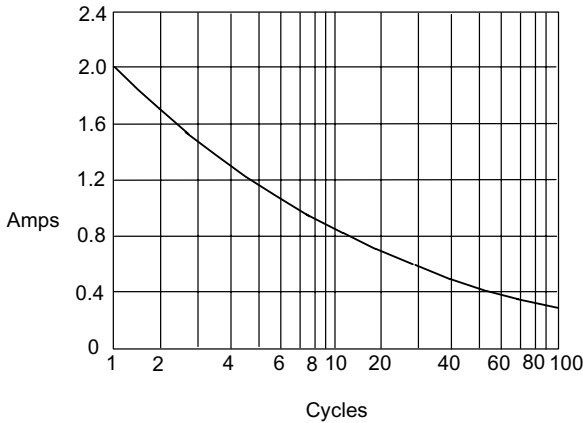
Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmpere *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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.