

**M·C·C·**

Micro Commercial Components

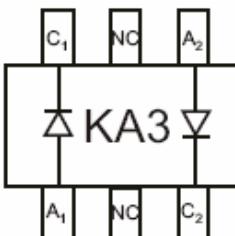


Micro Commercial Components  
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**MMBD4448DW**

## Features

- For General Purpose Switching Applications
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ultra-Small Surface Mount Package
- High Conductance, Power Dissipation
- Fast Switching Speed
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1



## Maximum Ratings

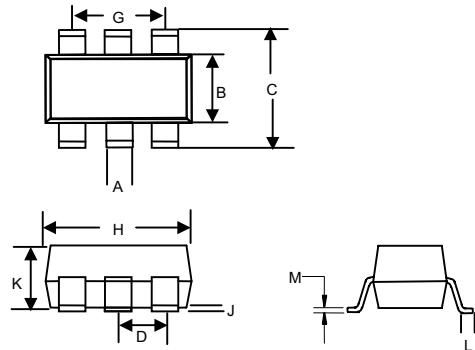
Symbol	Rating	Rating	Unit
$V_{RM}$	Non-Repetitive Peak Reverse Voltage	100	V
$V_{RRM}$	Peak Repetitive Reverse Voltage		
$V_{RWM}$	Working Peak Reverse Voltage	75	V
$V_R$	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	53	V
$I_{FM}$	Forward Continuous Current	500	mA
$I_o$	Average Rectified Output Current	250	mA
$I_{FSM}$	Peak Forward Surge Current @ 1.0 $\mu$ s @ 1.0s	4.0 2.0	A
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	625	$^{\circ}$ C/W
$P_D$	Power dissipation	200	mW
$T_J$	Junction Temperature	150	$^{\circ}$ C
$T_{STG}$	Storage Temperature	-65 to +150	$^{\circ}$ C

## Electrical Characteristics @ 25 $^{\circ}$ C Unless Otherwise Specified

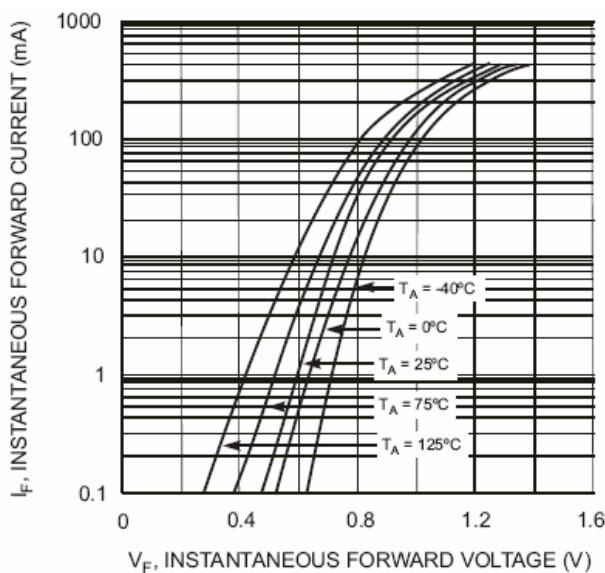
Symbol	Parameter	Min	Max	Test Conditions
$V_{(BR)}$	Reverse Breakdown Voltage	75V	---	$I_R=10 \mu A$
$I_R$	Reverse Voltage Leakage Current	2.5 $\mu$ A --- 50 $\mu$ A 35 $\mu$ A 25nA		$V_R=75V$ $V_R=75V, T_J=150^{\circ}C$ $V_R=25V, T_J=150^{\circ}C$ $V_R=20V$
$V_F$	Forward Voltage	0.6 --- 1.0V --- 1.25V	0.72V 0.855V 1.0V 1.25V	$I_F=5.0mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
$C_T$	Total Capacitance	---	4.0pF	$V_R=0V, f=1MHz$
$t_{rr}$	Reverse Recovery Time	---	4.0ns	$I_R=I_F=10mA$ , $I_{rr}=0.1 \times I_R$ , $R_L=100 \Omega$

**200mW  
Switching Diodes**

**SOT-363**

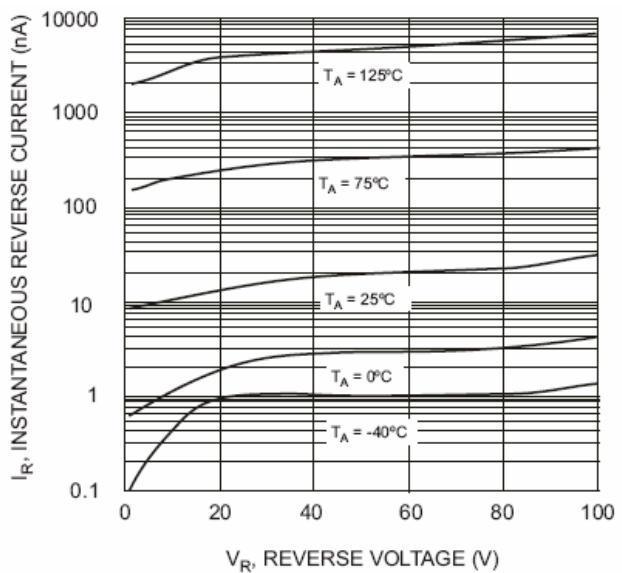


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	



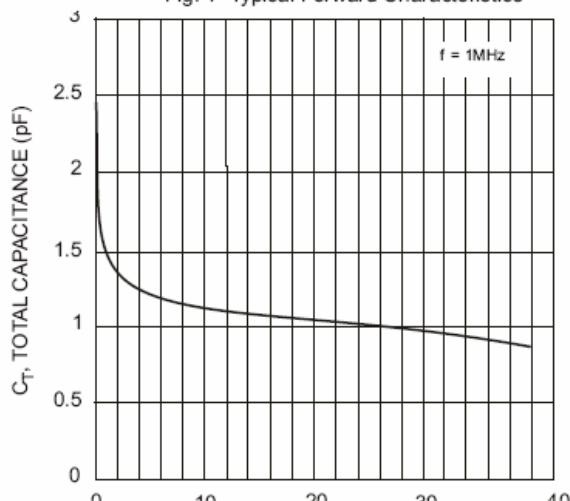
V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 1 Typical Forward Characteristics



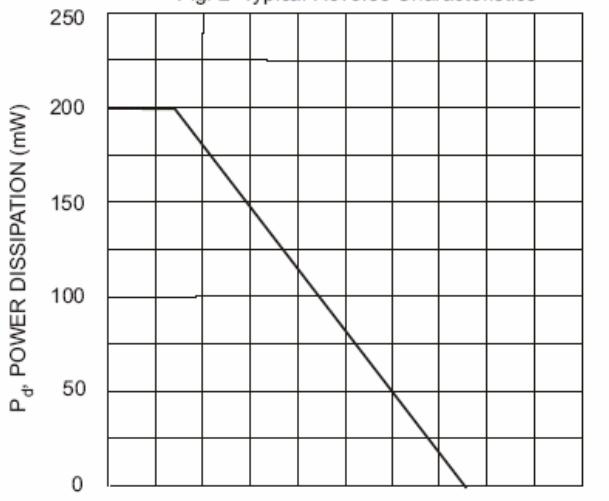
V<sub>R</sub>, REVERSE VOLTAGE (V)

Fig. 2 Typical Reverse Characteristics



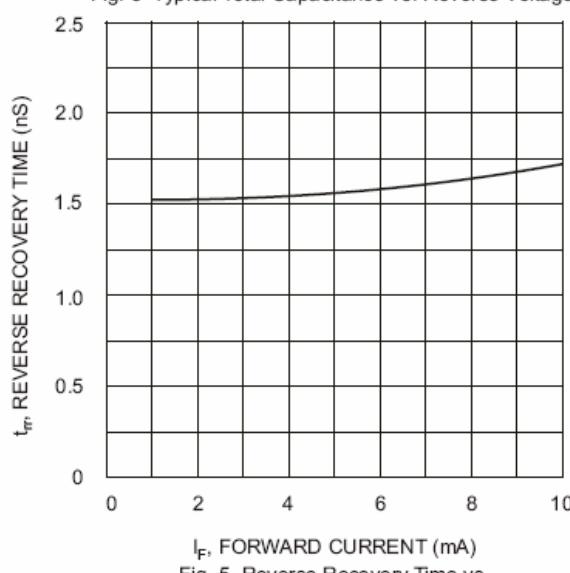
V<sub>R</sub>, REVERSE VOLTAGE (V)

Fig. 3 Typical Total Capacitance vs. Reverse Voltage



T<sub>A</sub>, AMBIENT TEMPERATURE (°C)

Fig. 4 Power Derating Curve, Total Package



I<sub>F</sub>, FORWARD CURRENT (mA)

Fig. 5 Reverse Recovery Time vs. Forward Current

<sup>TM</sup>

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## Ordering Information :

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

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