

Features

- AEC-Q101 Qualified
- Fast Switching Speed
- Ultra-Small Surface Mount Package
- High Conductance, Power Dissipation
- For General Purpose Switching Applications
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature : -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note2):625°C/W Junction to Ambient

MCC Part Number	Device Marking	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
MMBD4448HSDWHE3	KAB	80V	57V	80V
MMBD4448HTWHE3	KAA	80V	57V	80V

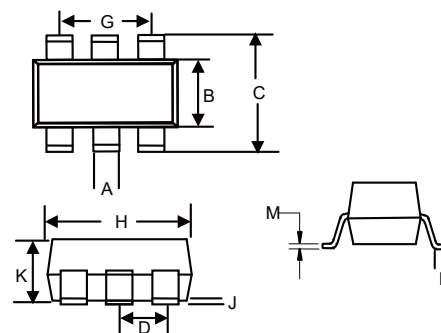
Non-Repetitive Peak Reverse Voltage	V_{RM}	100V	
Working Peak Reverse Voltage	V_{RWM}	80V	
Forward Continuous Current	I_{FM}	500mA	
Average Rectified Output Current	I_o	250mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4.0A 1.5A	@ t=1.0us @ t=1.0s
Power Dissipation	P_D	200mW	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Note: 2. Part mounted on FR-4 board with recommended pad layout.

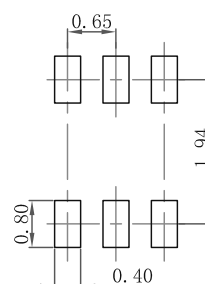
200mW Switching Diodes

SOT-363

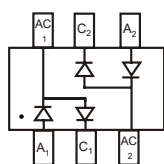


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D		0.026	0.65	Nominal	
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	-----	0.004	-----	0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

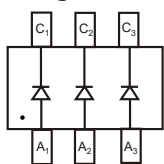
Suggested Solder Pad Layout



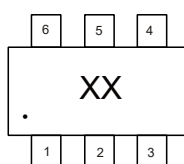
Internal Structure and Marking Code



MMBD4448HSDWHE3



MMBD4448HTWHE3



XX:Device Code

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Breakdown Voltage	V_{BR}	$I_R=100\mu A$	80			V
Forward Voltage	V_F	$I_F=5.0mA$	0.620		0.720	V
		$I_F=10.0mA$			0.855	
		$I_F=50.0mA$			1.000	
		$I_F=150.0mA$			1.250	
Peak Reverse voltage	I_R	$V_R=20V$			25	nA
		$V_R=70V$			100	
Junction Capacitance	C_J	$V_R=0.0V, f=1.0MHz$		2		pF
Reverse Recovery Time	t_{rr}	$I_F=10mA, I_R=10mA$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		4.0		ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

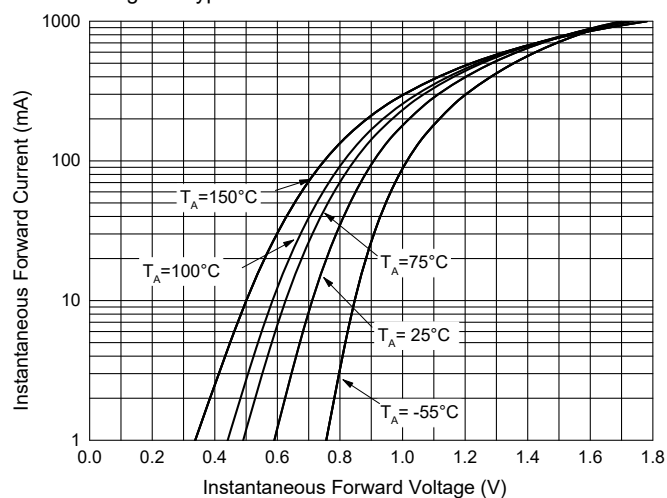


Fig. 2 - Typical Reverse Leakage Characteristics

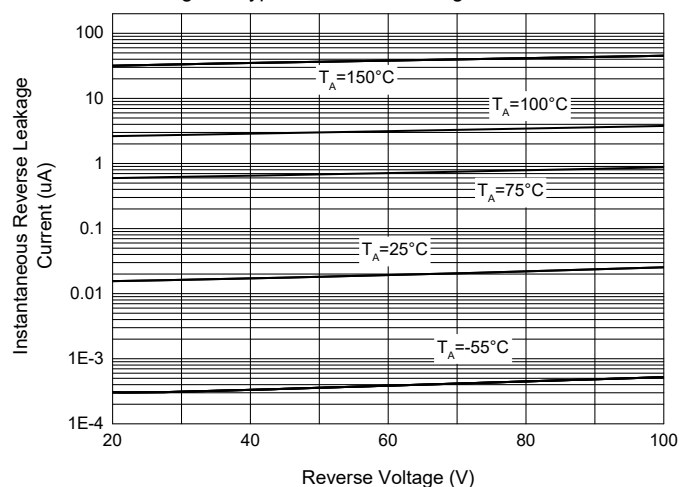


Fig. 3 - Capacitance Characteristics

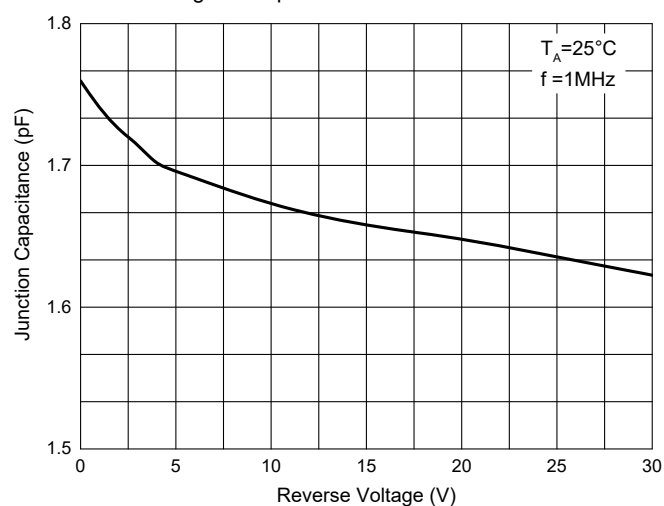
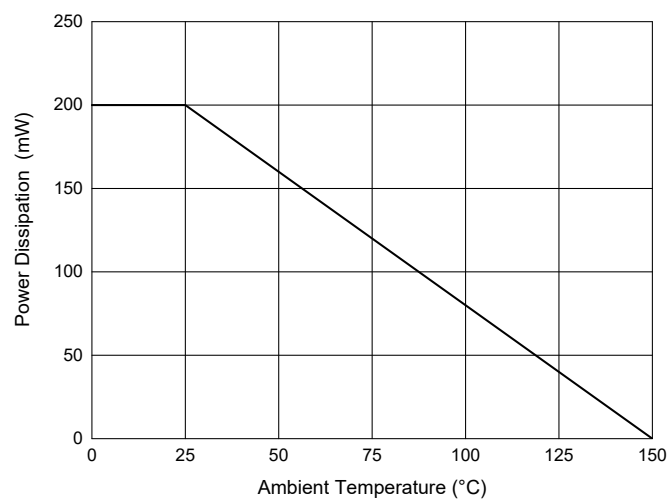


Fig. 4 - Power Derating Curve



Ordering Information

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

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