

Features

- 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 Range: 150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

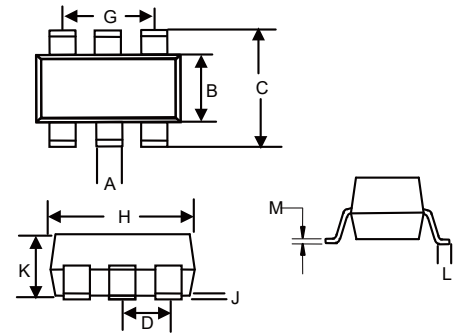
MCC Part Number	Device Marking	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
MMBD4448HAQW	KA5	80V	57V	80V
MMBD4448HADW	KA6	80V	57V	80V
MMBD4448HCDW	KA7	80V	57V	80V
MMBD4448HSDW	KAB	80V	57V	80V
MMBD4448HCQW	KA4	80V	57V	80V
MMBD4448HTW	KAA	80V	57V	80V

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.

200mW Switching Diodes

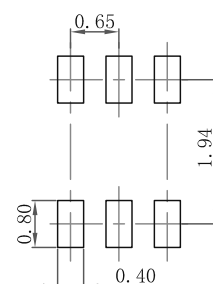
SOT-363



DIMENSIONS

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	

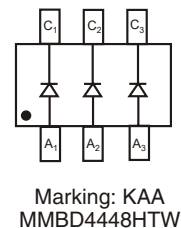
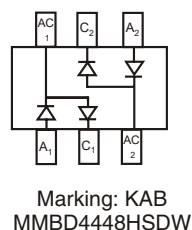
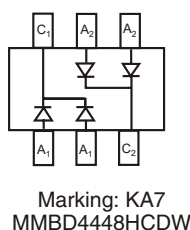
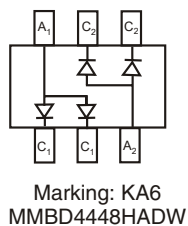
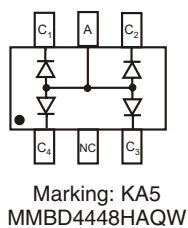
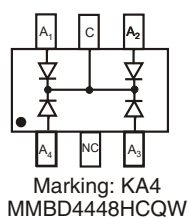
Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Minimum Breakdown Voltage	V_{BR}	80V	$I_R=100\mu A$
Maximum Forward Voltage	V_F	0.720V 0.855V 1.000V 1.250V	$I_F=5.0mA$ $I_F=10.0mA$ $I_F=50.0mA$ $I_F=150.0mA$
Minimum Forward Voltage	V_F	0.620V	$I_F=5.0mA$
Maximum Peak Reverse voltage	I_R	25nA 100nA 30 μA 50 μA	$V_R=20V, T_J=25^\circ C$ $V_R=70V, T_J=25^\circ C$ $V_R=25V, T_J=150^\circ C$ $V_R=75V, T_J=150^\circ C$
Maximum Total Capacitance	C_T	3.5pF	$V_R=6.0V, f=1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	4.0ns	$I_F=5mA, V_R=6V$

Internal Structure



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

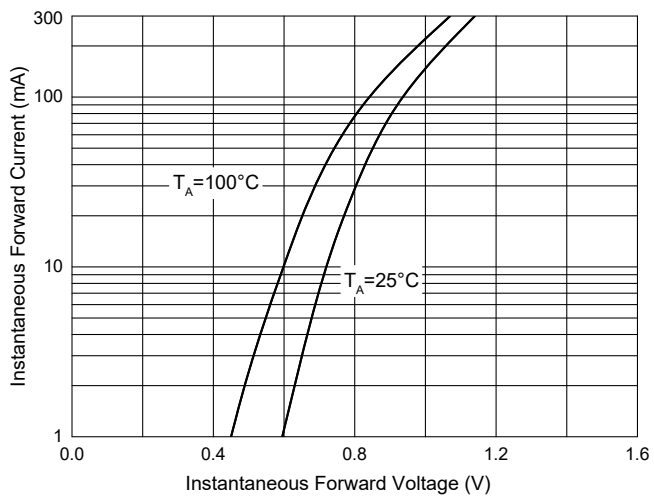


Fig. 2 - Typical Reverse Leakage Characteristics

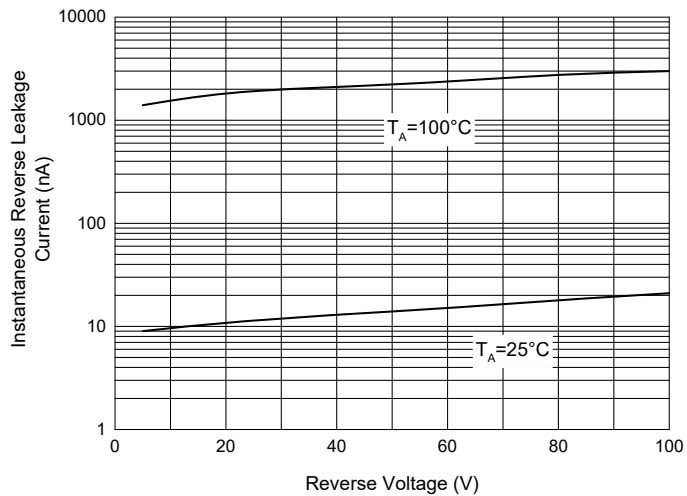


Fig. 3 - Power Derating Curve

