

Features

- Fast Switching Speed
- High Conductance, Power Dissipation
- Ultra-Small Surface Mount Package
- 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

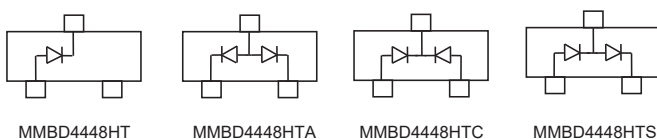
- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 833°C/W Junction to Ambient

MCC Part Number	Device Marking	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
MMBD4448HT	A3	80V	57V	80V
MMBD4448HTA	A6	80V	57V	80V
MMBD4448HTC	A7	80V	57V	80V
MMBD4448HTS	AB	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	
Peak Forward Surge Current	I_{FSM}	4.0A 2.0A 1.0A	@1.0µs @8.3ms @1.0s
Power Dissipation	P_D	150mW	

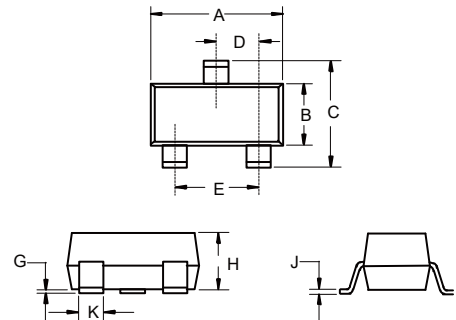
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



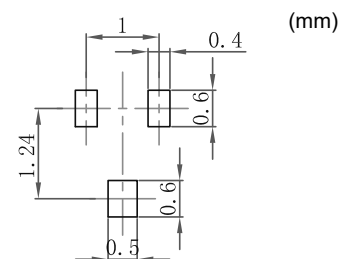
**150mW
Switching Diodes**

SOT-523



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.030	0.033	0.75	0.85	
C	0.057	0.069	1.45	1.75	
D	0.020 Nominal		0.50 Nominal		
E	0.035	0.043	0.90	1.10	
G	0.000	0.004	0.00	0.10	
H	0.024	0.031	0.60	0.80	
J	0.004	0.008	0.10	0.20	
K	0.006	0.014	0.15	0.35	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Minimum Breakdown Voltage	V_{BR}	80V	$I_R=2.5\mu A$
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	0.1 μA 25nA	$V_R=70V$ $V_R=20V$
Maximum Total Capacitance	C_T	3.5pF	$V_R=6.0V, f=1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	4.0ns	$I_F=5mA, V_R=6V$

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

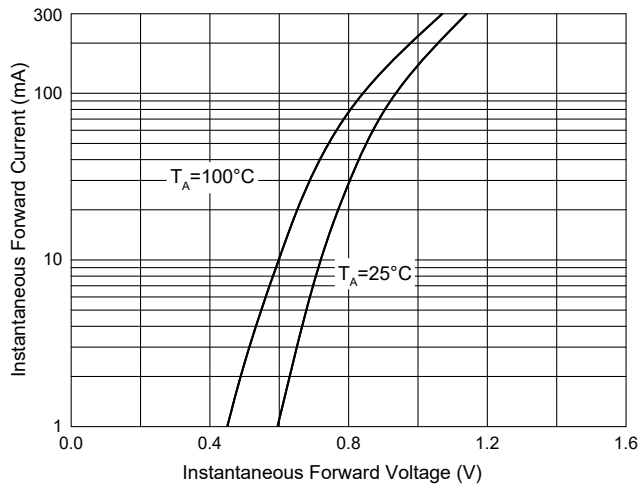


Fig. 2 - Typical Reverse Leakage Characteristics

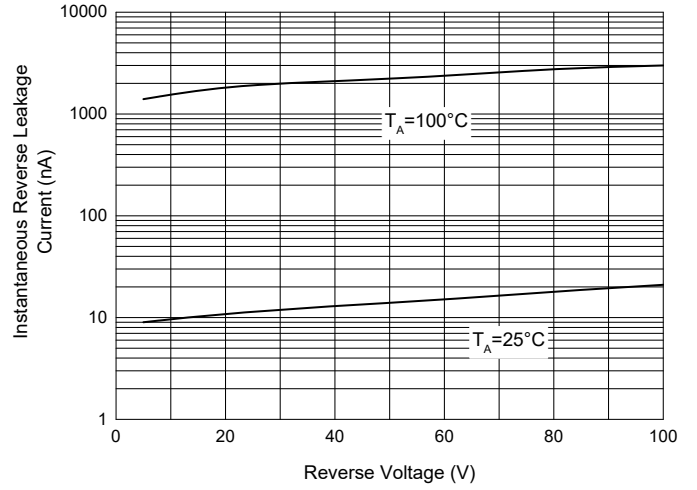


Fig. 3 - Power Derating Curve

