WEITRON

MMBD4448HT/HTA
HTC/HTS

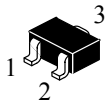
Surface Mount Switching Diodes

Lead(Pb)-Free

SWITCHING DIODES
250 mAMPERES
80 VOLTS

Features:

* Ultra-Small Surface Mount Package
* Fast switching Speed
* For General Purpose Switching Applications
* High Conductance



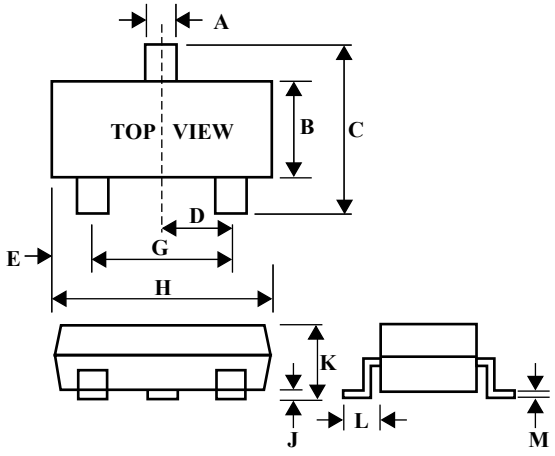
SOT-523(SC-75)

Mechanical Data:

* Terminals: Solderable per MIL-STD-202, Method 208
* Polarity: See Diagrams Page.2
* Marking: See Diagrams Page.2
* Weight: 0.002 grams (approx)

SOT-523 Outline Dimensions (SC-75)

Unit:mm



SOT-523		
Dim	**Min**	**Max**
A	0.30	0.50
B	0.70	0.90
C	1.45	1.75
D	-	0.50
E	0.15	0.40
G	0.80	1.00
H	1.40	1.80
J	0.00	0.10
K	0.70	1.00
L	0.37	0.48
M	0.10	0.25

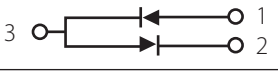
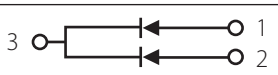
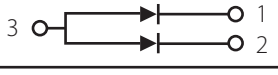
Maximum Ratings (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Non-Repetitve Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RRM} V_R	80	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @t=1.0μS @t=1.0S	I_{FSM}	4.0 2.0	A
Power Dissipation	P_d	150	mW
Thermal Resistance	$R_{\theta JA}$	833	°C/W
Junction Temperature Range	T_j	+150	°C
Storage Temperature Range	T_{STG}	-65 to + 150	°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage I_R=2.5μA	$V_{(BR)R}$	80	-	V
Forward Voltage I_F=5mA I_F=10mA I_F=100mA I_F=150mA	V_F	620	720 855 1000 1250	mV
Total Capacitance V_R=6V, f=1.0MHz	C_T	-	3.5	pF
Reverse Current V_R=70V V_R=20V	I_R	-	0.1 0.025	μA
Reverse Recover Time V_R=6V, I_F=5mA	T_{rr}	-	4.0	nS

Device Marking

Item	Marking	Eqivalent Circuit diagram
MMBD4448HT	A3	
MMBD4448HTS	AB	
MMBD4448HTC	A7	
MMBD4448HTA	A6	

Electrical Characteristic curves(T_A=25˚C)

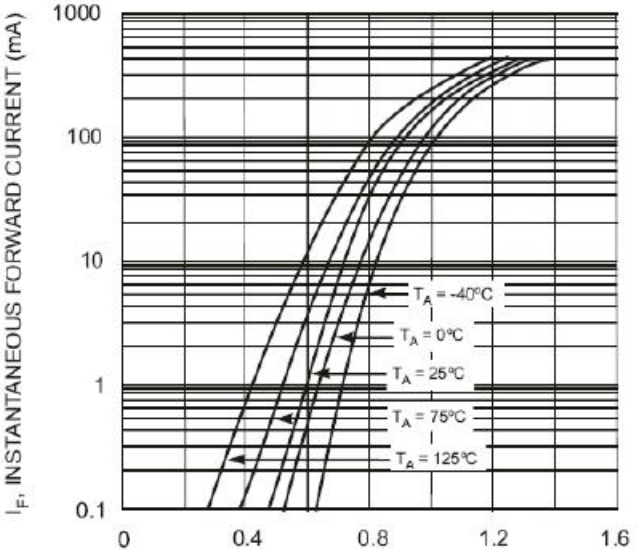


Fig. 1 Typical Forward Characteristics

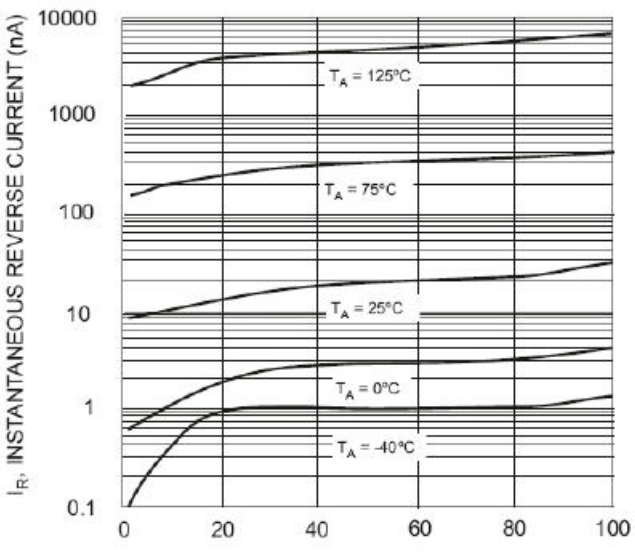


Fig. 2 Typical Reverse Characteristics

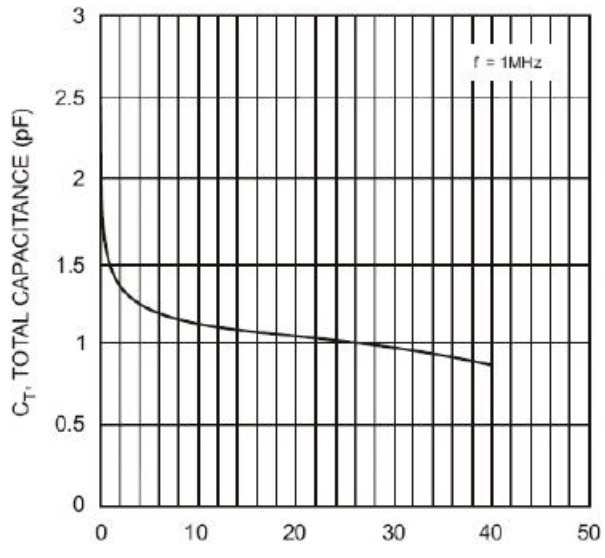


Fig. 3 Typical Capacitance vs. Reverse Voltage

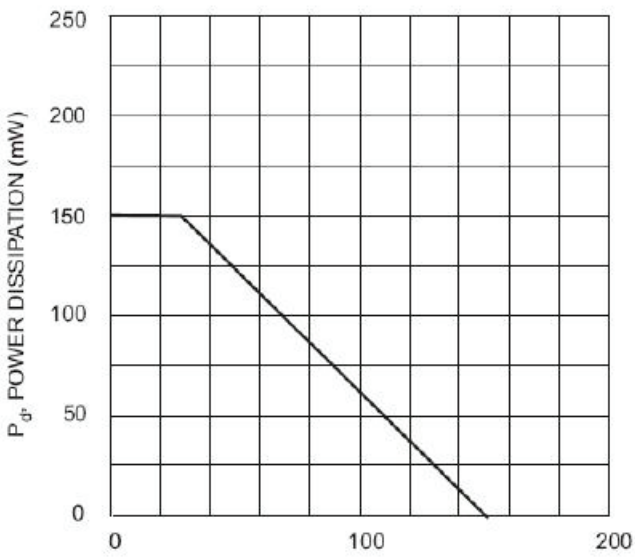


Fig. 4 Power Derating Curve, Total Package