

Surface Mount Fast Switching Diode

MMBD4448HT/HTA/HTC/HTS

FEATURES

- Ultra-Small surface mount package.
- Fast switching speed.
- For general purpose switching applications.
- High conductance.

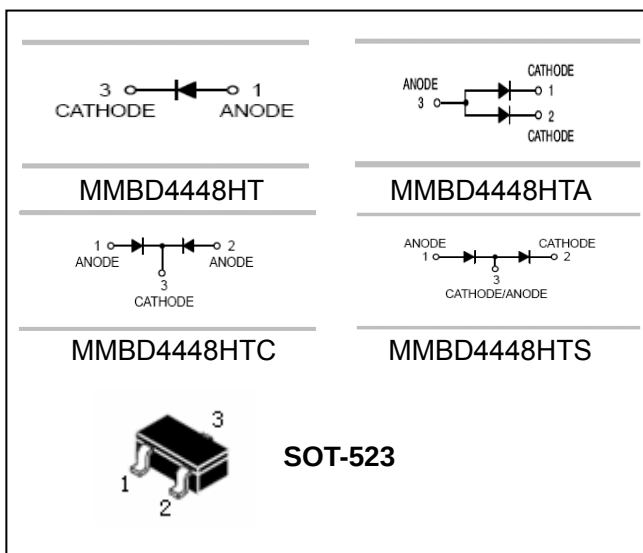


Lead-free

APPLICATIONS

- General purpose switching application.

ORDERING INFORMATION



Type No.	Marking	Package Code
MMBD4448HT	A3	SOT-523
MMBD4448HTA	A6	SOT-523
MMBD4448HTC	A7	SOT-523
MMBD4448HTS	AB	SOT-523

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{RM}	Non-repetitive peak reverse voltage	100	V
V_{RRM}	Peak repetitive reverse voltage	85	V
V_{RWM}	Working peak reverse voltage		
V_R	DC reverse voltage		
$V_{R(RMS)}$	RMS reverse voltage	57	V
I_{FM}	Forward continuous voltage(MAX.)	500	mA
I_O	Peak rectified output current	250	mA
I_{FSM}	Non-repetitive peak forward surge current @t=1.0μs @t=1.0s	4.0 2.0	A
P_d	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance junction to ambient	833	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65~150	°C

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ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=2.5\mu\text{A}$	80		V
Leakage current	I_R	$V_R=70\text{V}$ $V_R=20\text{V}$		0.1 25	μA nA
Forward voltage	V_F	$I_F=5\text{mA}$ $I_F=10\text{mA}$ $I_F=100\text{mA}$ $I_F=150\text{mA}$	0.62	0.72 0.855 1.0 1.25	V
Typical total capacitance	C_T	$V_R=6\text{V}, f=1\text{MHz}$		3.5	pF
Reverse recovery Time	t_{rr}	$V_R=6\text{V}, I_F=5\text{mA}$		4.0	ns

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

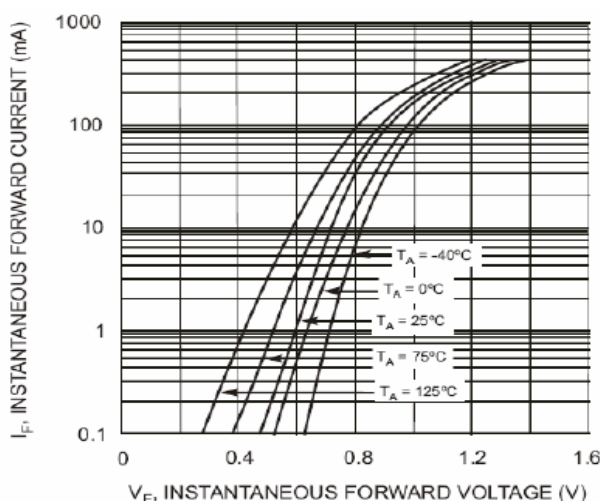


Fig. 1 Typical Forward Characteristics

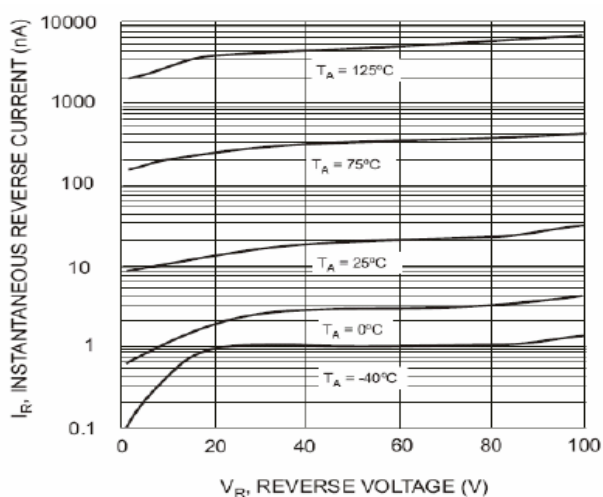


Fig. 2 Typical Reverse Characteristics

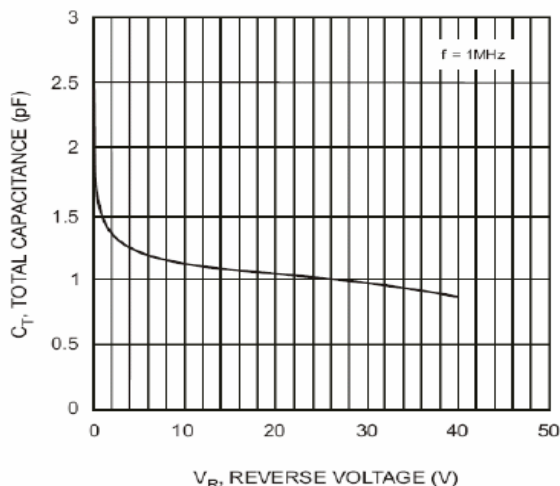


Fig. 3 Typical Capacitance vs. Reverse Voltage

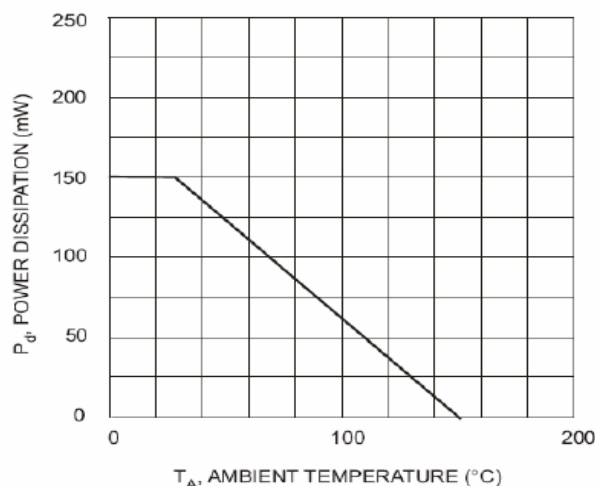


Fig. 4 Power Derating Curve, Total Package

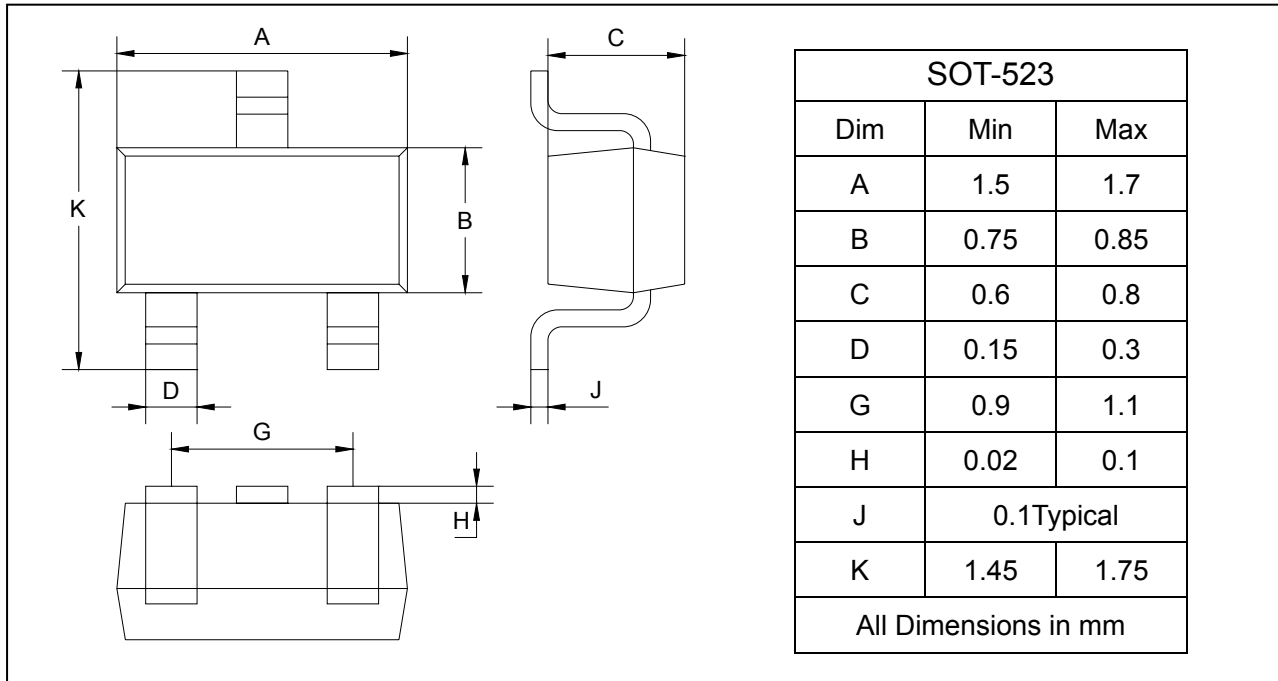
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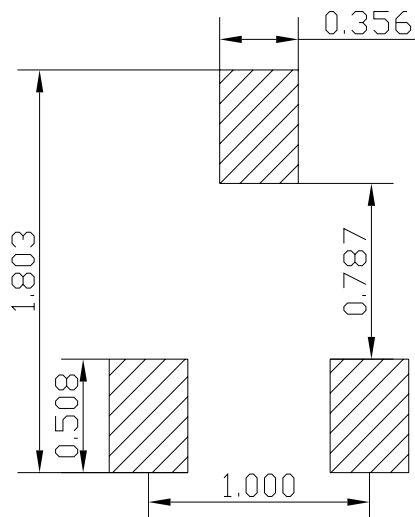
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMBD4448HT/HTA/HTC/HTS	SOT-523	3000/Tape&Reel