

Surface Mount Fast Switching Diodes

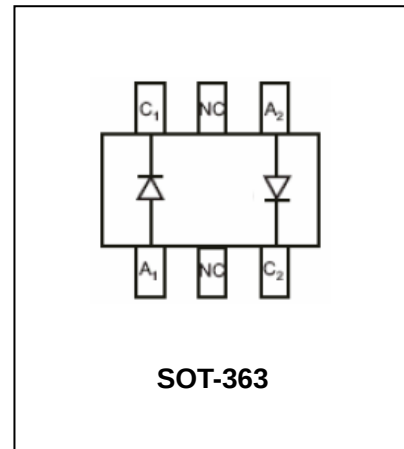
MMBD4448DW

FEATURES

- Fast switching speed.
- For general purpose switching application.
- Ultra-small surface mount package.
- High conductance.



Lead-free



APPLICATIONS

- For general purpose switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD4448DW	KA3	SOT-363

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Characteristic	Value	Unit
V_{RM}	Non-repetitive peak reverse Voltage	100	V
V_{RRM} V_{RWM} V_R	Peak repetitive reverse Voltage Working peak reverse voltage DC reverse voltage	75	V
$V_{R(RMS)}$	RMS Reverse voltage	53	V
I_{FM}	Forward continuous current	500	mA
I_O	Average rectified output current	250	mA
I_{FSM}	Non-Repetitive peak forward surge current @t<1.0μs @t<1.0s	4 2	A
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	625	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +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	$V_{(BR)R}$	$I_R=10\mu\text{A}$	75		V
Forward voltage	V_F	$I_F=5.0\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	0.62	0.720 0.855 1.0 1.25	V
Reverse current	I_R	$V_R=75\text{V}$ $V_R=75\text{V}, T_j=150^\circ\text{C}$ $V_R=25\text{V}, T_j=150^\circ\text{C}$ $V_R=20\text{V}$		2.5 50 30 25	μA μA μA nA
Total Capacitance	C_T	$V_{CB}=10\text{V}, f=1.0\text{MHz}, I_E=0$		4.0	pF
Reverse Recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1*I_R, R_L=100\Omega$		4.0	ns

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

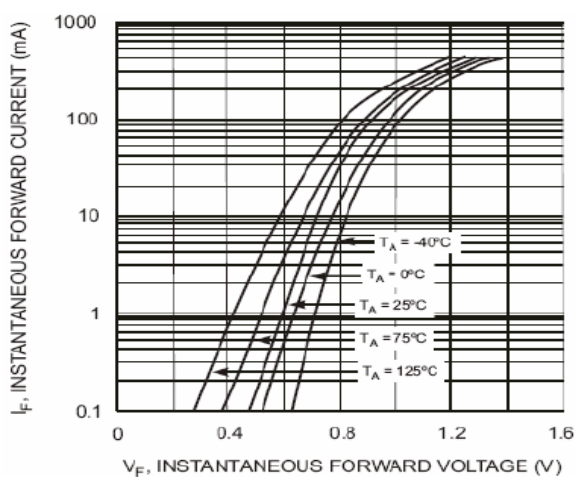


Fig. 1 Typical Forward Characteristics

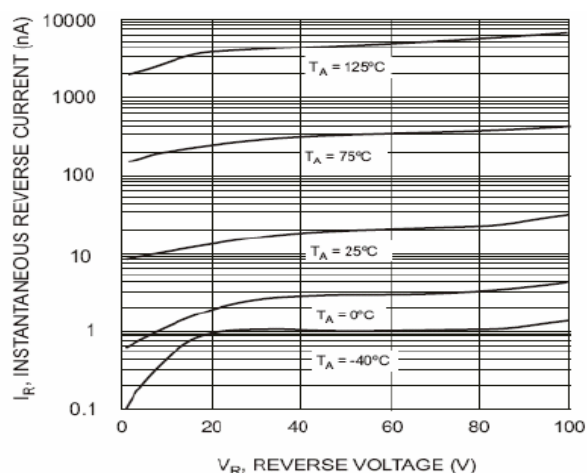


Fig. 2 Typical Reverse Characteristics

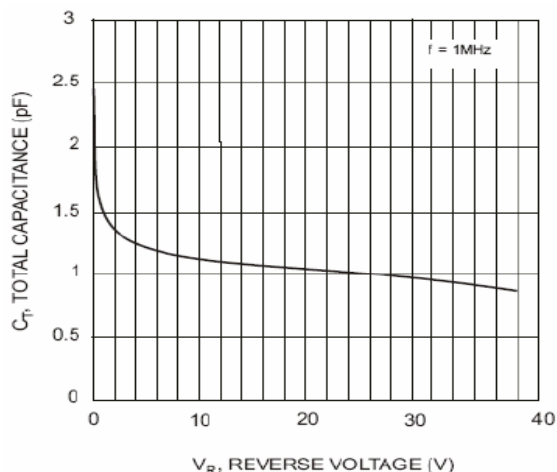


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

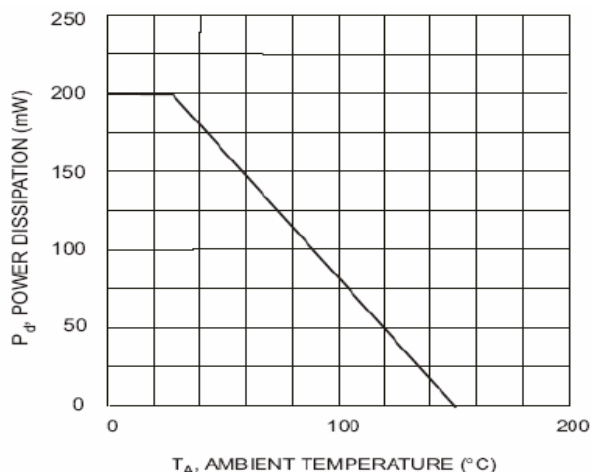


Fig. 4 Power Derating Curve, Total Package

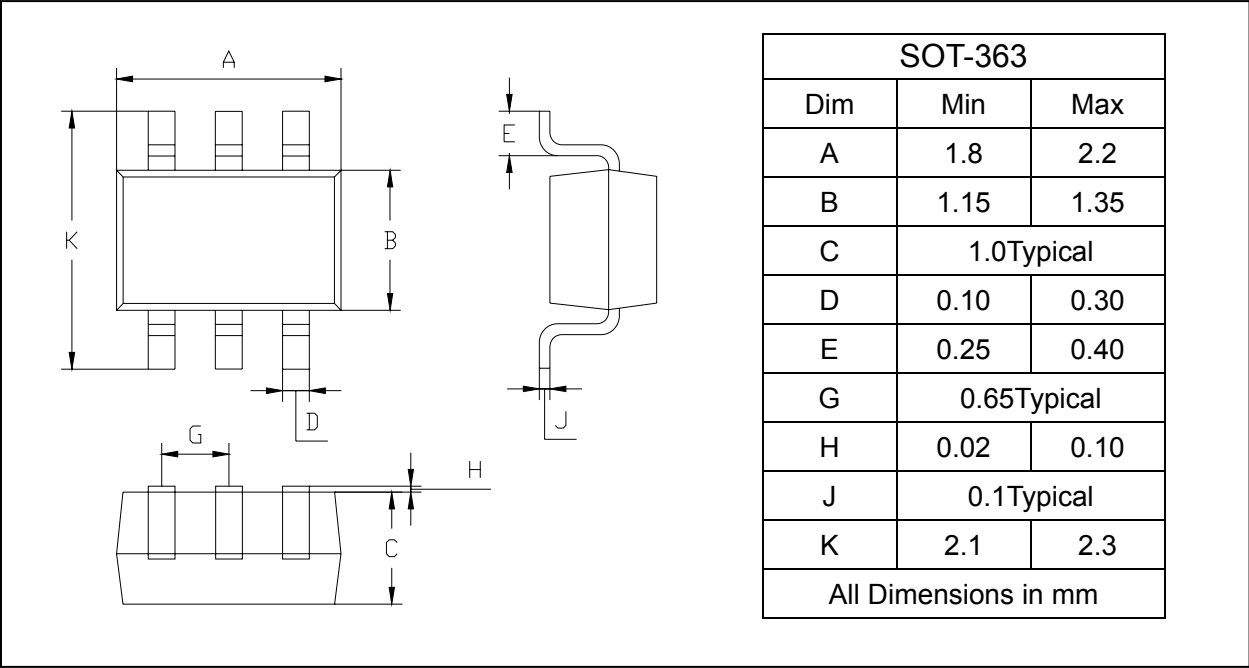
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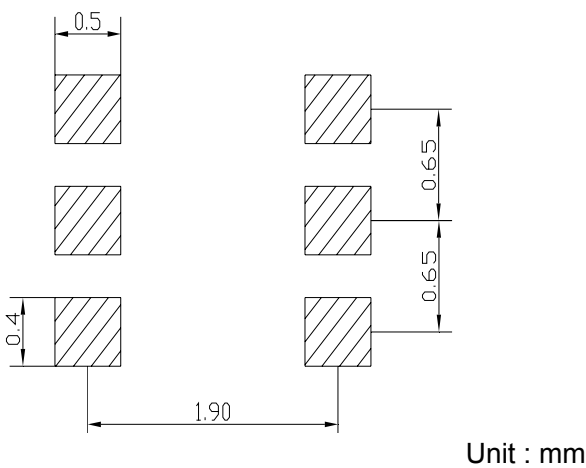
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBD4448DW	SOT-363	3000/Tape&Reel