

Surface Mount Fast Switching Diodes

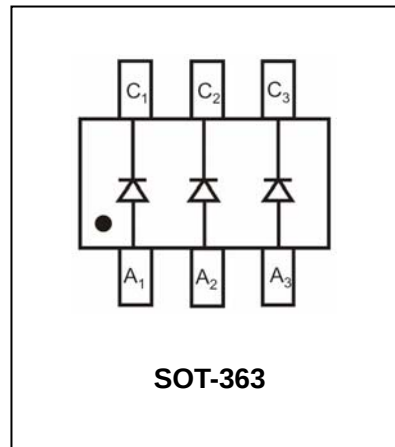
MMBD4148TW/BAS16TW

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
MMBD4148TW	KA2	SOT-363
BAS16TW	KA2	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}	Peak repetitive reverse Voltage	75	V
V_{RWM}	Working peak reverse voltage		
V_R	DC reverse voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	53	V
I_O	Average rectified output current	150	mA
I_{FSM}	Non-Repetitive peak forward surge current		A
	@t=1.0μs	2.0	
	@t=1.0s	1.0	
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	$V_{(BR)R}$	$I_R=1\mu\text{A}$	75	-	V
Forward voltage	V_F	$I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	-	0.715 0.855 1.0 1.25	V
Reverse Current	I_R	$V_R=75\text{V}$ $V_R=75\text{V}, T_j=150^\circ\text{C}$ $V_R=25\text{V}, T_j=150^\circ\text{C}$ $V_R=20\text{V}$	-	1.0 50 30 25	μA μA μA nA
Total Capacitance	C_T	$V_R=0, f=1.0\text{MHz}$	-	2.0	pF
Reverse Recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$	-	4.0	ns

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

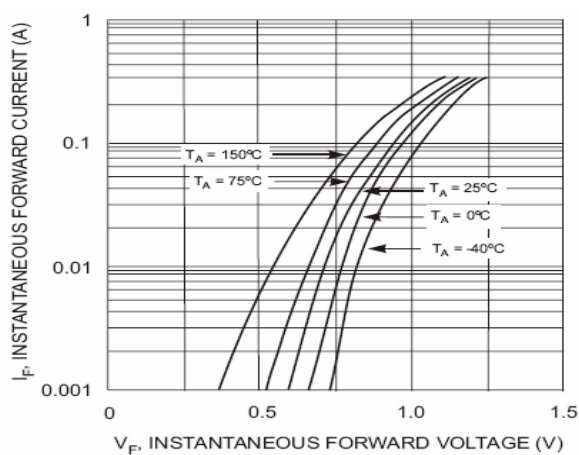


Fig. 1 Forward Characteristics

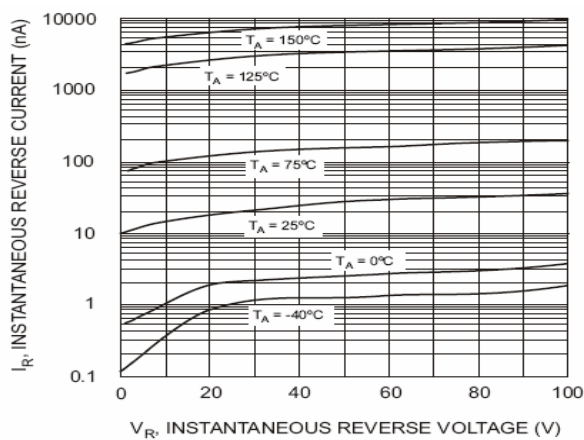


Fig. 2 Typical Reverse Characteristics

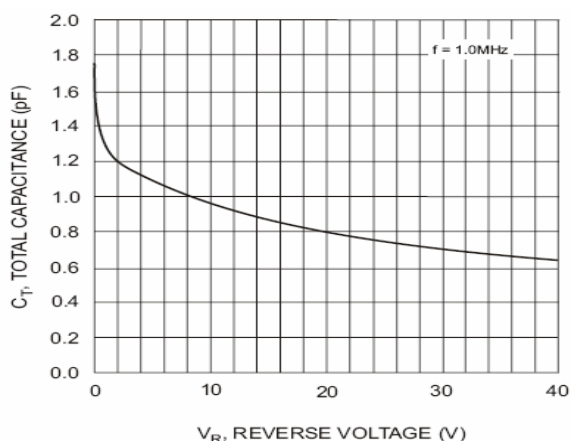


Fig. 3 Typical Capacitance vs. Reverse Voltage

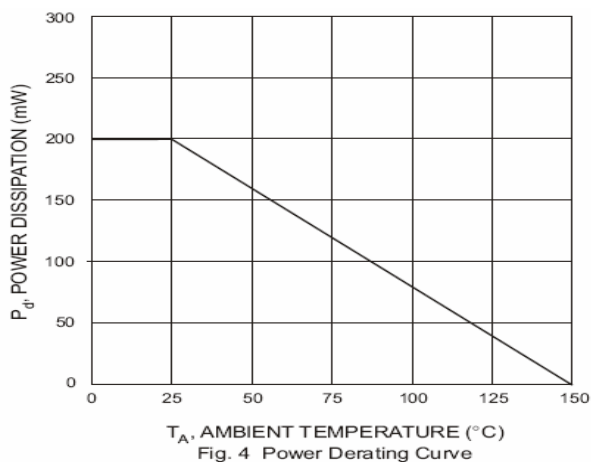


Fig. 4 Power Derating Curve

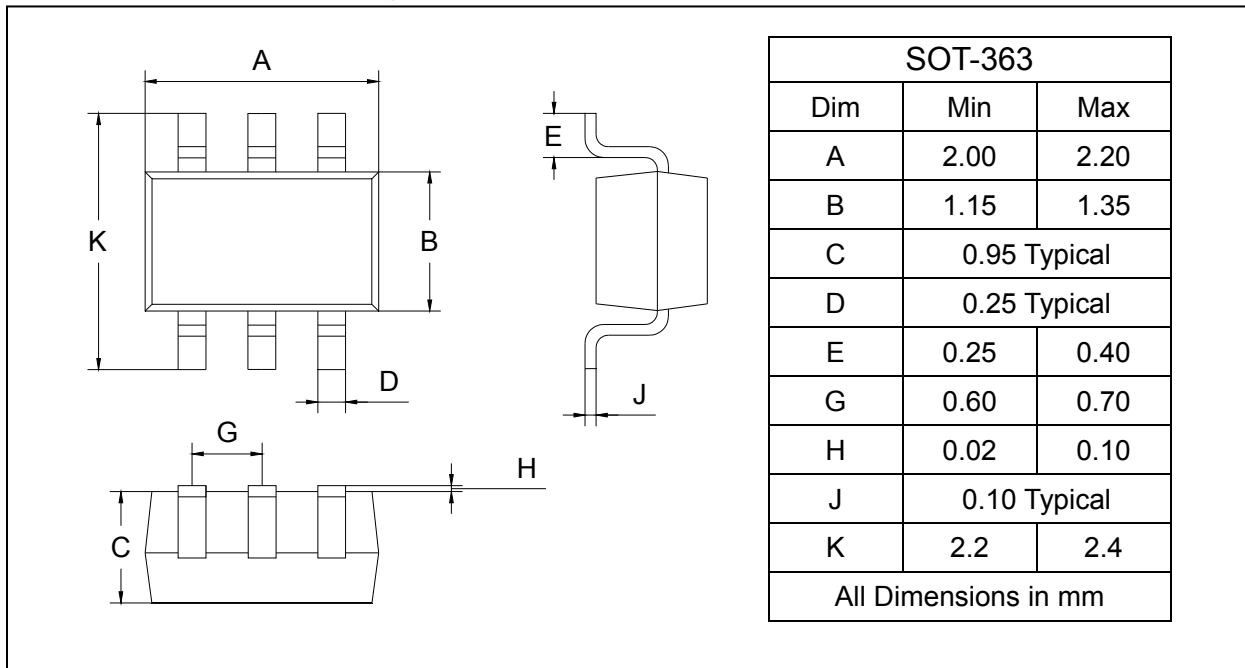
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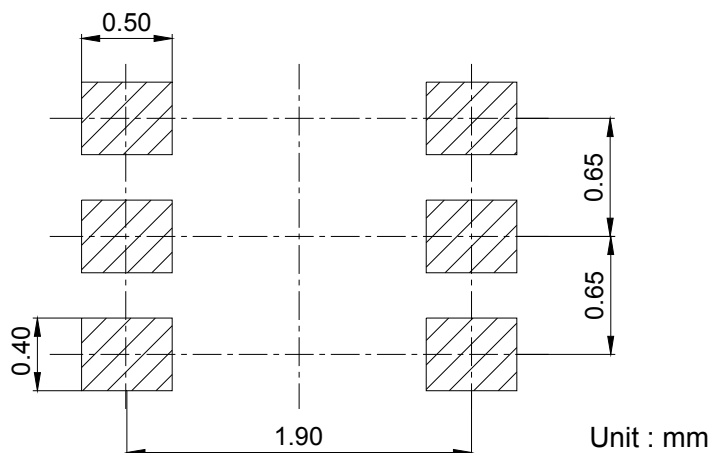
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBD4148TW/BAS16TW	SOT-363	3000/Tape&Reel