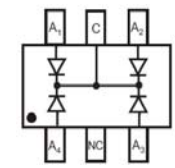
Surface Mount Fast Switching Diodes

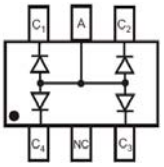
MMBD4448HCQW/AQW/ADW/CDW/SDW/TW

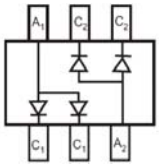
FEATURES

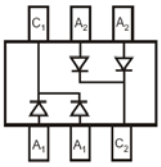
Lead-free

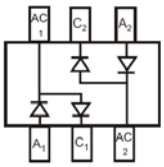
- High conductance.
- Fast switching speed.
- Ultra-small surface mount package.
- For general purpose switching application.

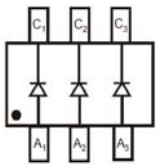

MMBD4448HCQW


MMBD4448HAQW


MMBD4448HADW


MMBD4448HCDW


MMBD4448HSDW


MMBD4448HTW

SOT-363

APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD4448HCQW	KA4	SOT-363
MMBD4448HAQW	KA5	SOT-363
MMBD4448HADW	KA6	SOT-363
MMBD4448HCDW	KA7	SOT-363
MMBD4448HSDW	KAB	SOT-363
MMBD4448HTW	KAA	SOT-363

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Characteristic	Value	Unit
V_{RM}	Non-Repetitive peak reverse voltage	100	V
V_{RRM} V_{RWM} V_R	Repetitive peak reverse Voltage Working peak reverse voltage DC reverse voltage	80	V
$V_{R(RMS)}$	RMS Reverse voltage	57	V
I_{FM}	Forward continuous current	500	mA
I_O	Average rectified output current	250	mA
I_{FSM}	Forward surge current @t=1.0μs @t=1.0s	4.0 2.0	A
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal resistance,Junction to ambient air	625	℃/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to+150	℃

Surface Mount Fast Switching Diodes
MMBD4448HCQW/AQW/ADW/CDW/SDW/TW

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	I_R=100μA	80	-	V
Average reverse current	I_R	V_R=70V V_R=75V，T_j=150℃ V_R=25V，T_j=150℃ V_R=20V	- - - -	100 50 30 25	nA uA uA nA
Forward voltage	V_F	I_F=5.0mA I_F=10mA I_F=100mA I_F=150mA	0.62 - - -	0.72 0.855 1.0 1.25	V
Total Capacitance	C_T	V_R=6V,f=1.0MHz	-	3.5	pF
Reverse Recovery time	t_{rr}	I_F=5mA, V_R=6V	-	4.0	ns

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

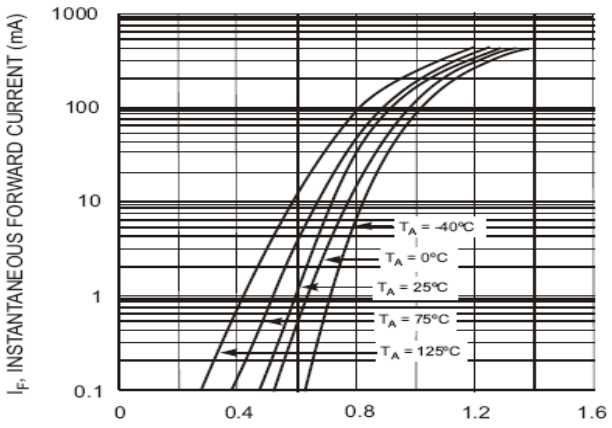


Fig. 1 Typical Forward Characteristics

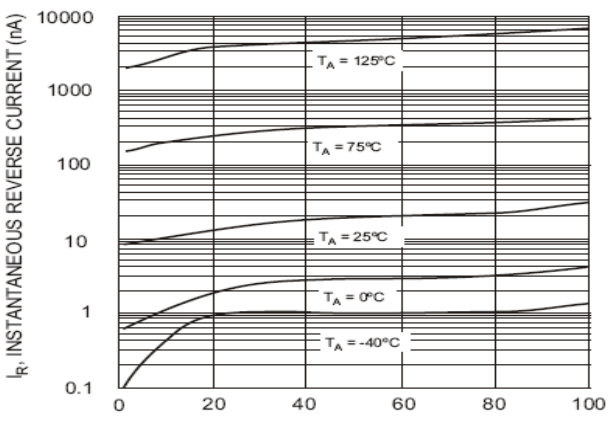


Fig. 2 Typical Reverse Characteristics

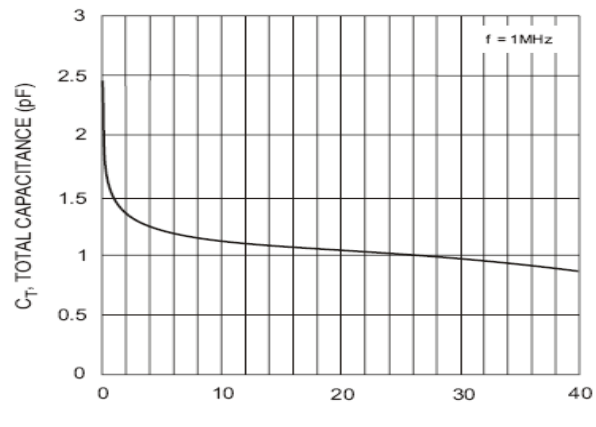


Fig. 3 Typical Capacitance vs. Reverse Voltage

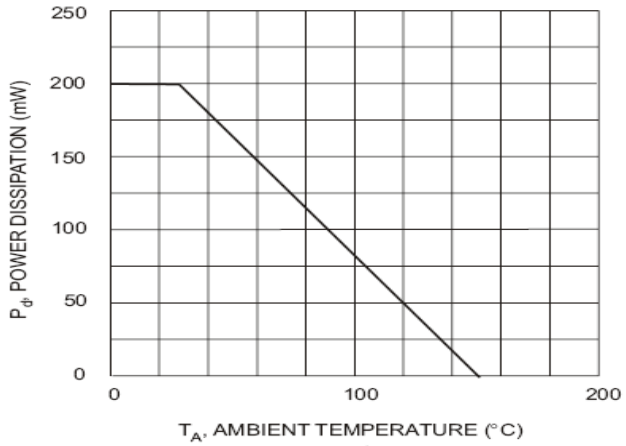
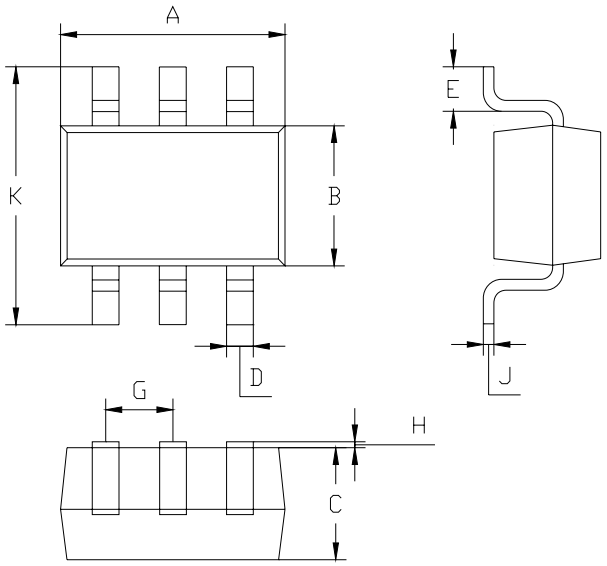


Fig. 4 Power Derating Curve, Total Package

Surface Mount Fast Switching Diodes
MMBD4448HCQW/AQW/ADW/CDW/SDW/TW

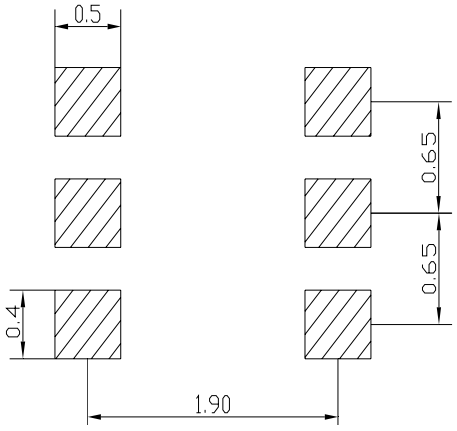
PACKAGE OUTLINE

Plastic surface mounted package SOT-363



SOT-363		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.10	0.30
E	0.25	0.40
G	0.65Typical	
H	0.02	0.10
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMBD4448HCQW/AQW/ADW /CDW/SDW/TW	SOT-363	3000/Tape&Reel