Switching Diode

FEATURES

- Fast switching speed
- Surface device type mounting
- Moisture sensitivity level 1
- High conductance power dissipation
- For general purpose switching applications
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)

SOT-363

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

- Case: SOT-363 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	200	mW
Repetitive Peak Reverse Voltage	V_{RRM}	80	V
Reverse Voltage	V_R	57	V
Average Rectified Forward Current	$I_{F(AV)}$	500	mA
Average Rectified Output Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @ t = 1 μs @ t = 1 s	I_{FSM}	4 1.5	A
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	°C

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	I_R=100μA	$V_{(BR)}$	80	-	V
Forward Voltage	I_F=5.0mA	V_F	0.620	0.715	V
	I_F=10mA		-	0.855	
	I_F=100mA		-	1.000	
	I_F=150mA		-	1.250	
Reverse Leakage Current	V_R=70V	V_F	-	100	nA
	V_R=75V, T_J=150°C		-	50	μA
	V_R=25V, T_J=150°C		-	30	μA
	V_R=20V		-	25	nA
Junction Capacitance	V_R=6V, f=1MHz	C_J	-	3.5	pF
Reverse Recovery Time	I_F=5mA, V_R=6V	t_{rr}	-	4.0	ns

Note 1: Device mounted on FR-4 PCB, 1 inch × 0.85 inch × 0.062 inch

Note 2: Short duration test pulse uesd tu minimize self-heating effect

Small Signal Product

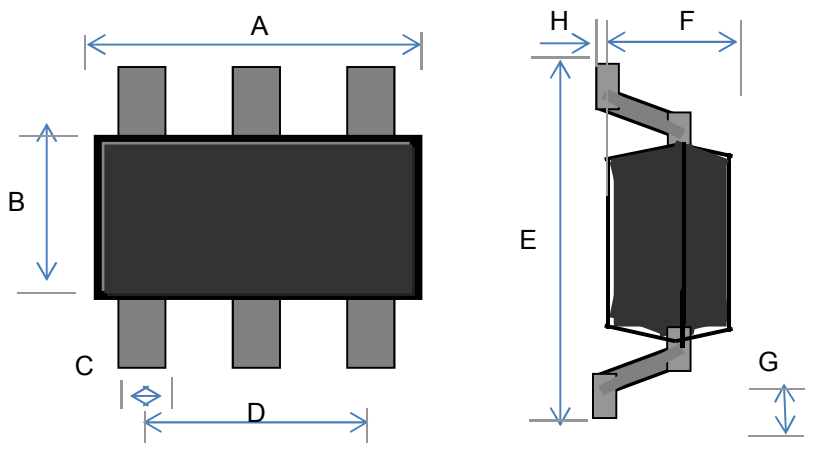
ORDER INFORMATION (EXAMPLE)

MBD4448HAQW RFG

- RFG: Green compound code
- Packing code
- MBD4448HAQW: Part no.

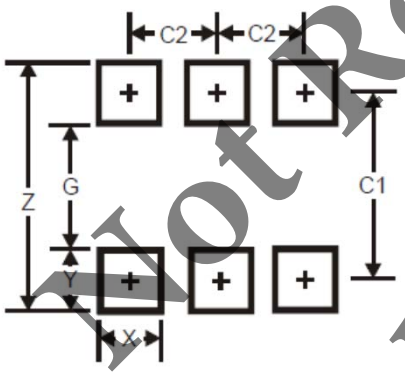
DIMENSIONS

SOT-363



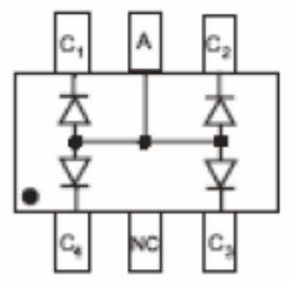
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.00	2.20	0.079	0.087
B	1.15	1.35	0.045	0.053
C	0.15	0.35	0.006	0.014
D	1.20	1.40	0.047	0.055
E	2.15	2.45	0.085	0.096
F	0.85	1.05	0.033	0.041
G	0.25	0.46	0.010	0.018
H	0.00	0.10	0.000	0.004

SUGGESTED PAD LAYOUT

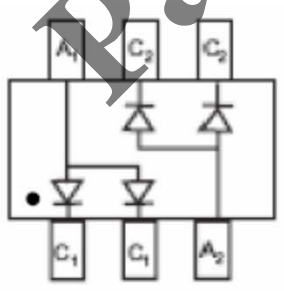


DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	3.20	0.126
G	1.60	0.063
X	0.55	0.022
Y	0.80	0.031
C1	2.40	0.094
C2	0.95	0.037

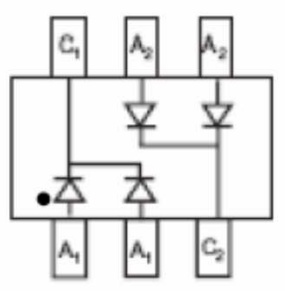
PIN CONFIGURATION



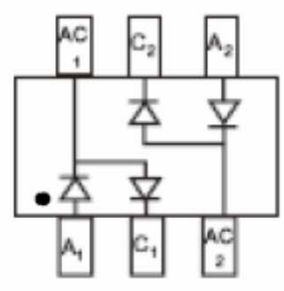
MBD4448HAQW



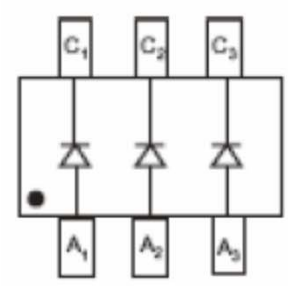
MBD4448HADW



MBD4448HCDW



MBD4448HSDW



MBD4448HTW

Small Signal Product

MARKING

Part no.	Marking code
MBD4448HAQW	KA5
MBD4448HADW	KA6
MBD4448HCDW	KA7
MBD4448HSDW	KA8
MBD4448HTW	KAA

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied,to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or seling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.