

Small Signal Product

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


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	4
		@ t = 1 s	1.5
Thermal Resistance (Junction to Ambient)	R _{θJA}	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	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	-	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 used to minimize self-heating effect

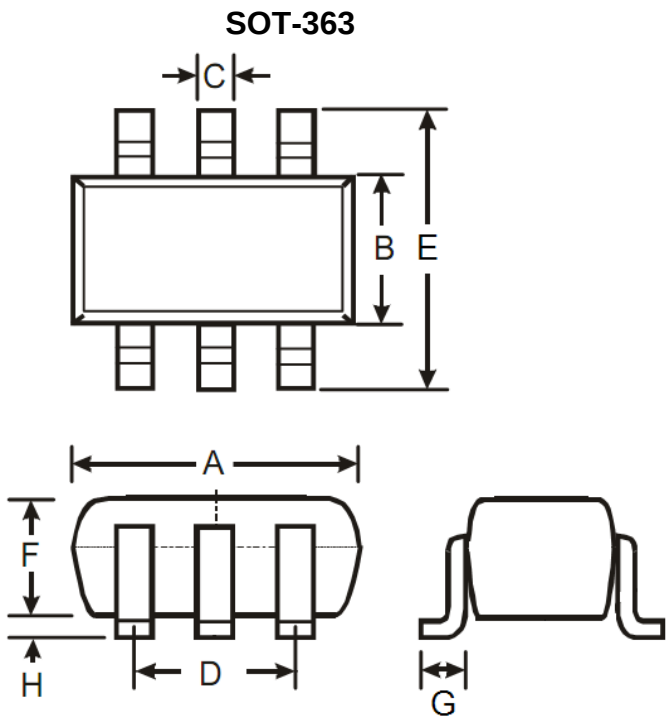
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ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
MBD4448Hxxx (Note 1, 2)	RE	G	SOT-363	3K / 7" Reel

Note 1: "xxx" is Device Code from "AQW" - "TW"
Note 2: Whole series with green compound

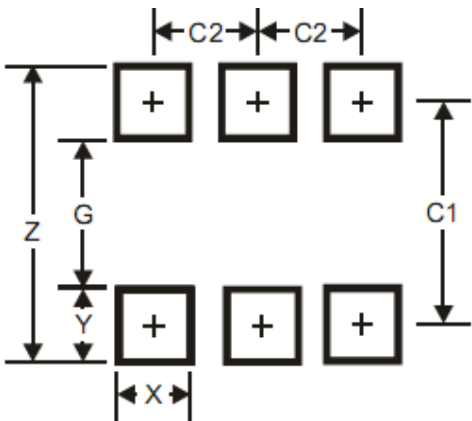
EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
MBD4448HTW REG	MBD4448HTW	RE	G	Green compound

DIMENSIONS



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

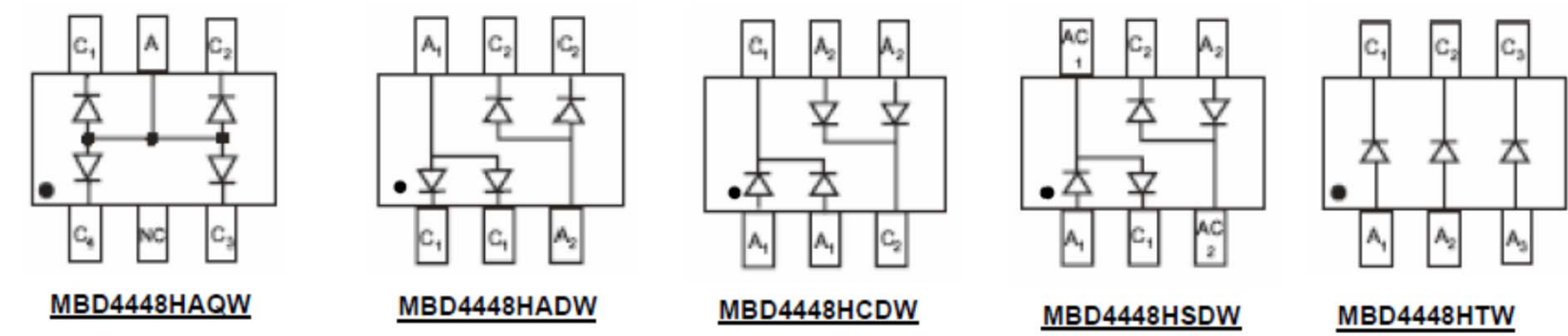
SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.50	0.098
G	1.30	0.051
X	0.42	0.017
Y	0.60	0.024
C1	1.90	0.075
C2	0.65	0.026

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PIN CONFIGURATION



MARKING

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

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