

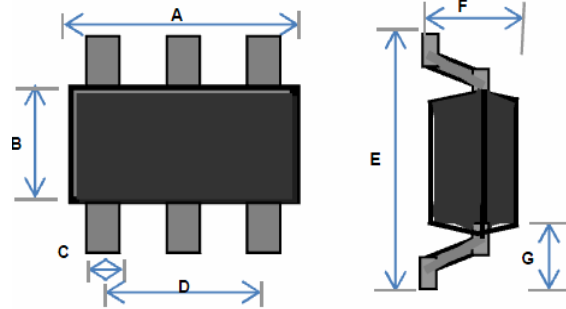
Small Signal Diode

SOT-363



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
- ✧Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

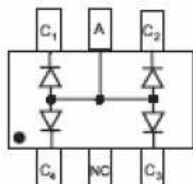


Mechanical Data

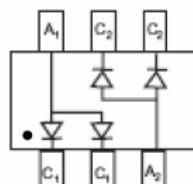
- ✧Case :SOT-363 small outline plastic package
- ✧Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧High temperature soldering guaranteed: 260°C/10s

Dimensions	Unit (inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.071	0.079	1.800	2.000
B	0.045	0.053	1.150	1.350
C	0.006	0.012	0.150	0.300
D	0.051BSC		1.300BSC	
E	0.083BSC		2.100BSC	
F	-	0.043	-	1.100
G	0.017		0.420	

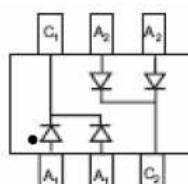
Pin Configuration



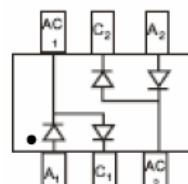
MBD4448HAQW



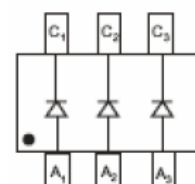
MBD4448HADW



MBD4448HCDW



MBD4448HSDW



MBD4448HTW

Ordering Information

Part No.	Package	Packing Code	Packing
MBD4448HAQW	SOT-363	RF	3K / 7" Reel
MBD4448HADW	SOT-363	RF	3K / 7" Reel
MBD4448HCDW	SOT-363	RF	3K / 7" Reel
MBD4448HSDW	SOT-363	RF	3K / 7" Reel
MBD4448HTW	SOT-363	RF	3K / 7" Reel
MBD4448HAQW	SOT-363	RFG	3K / 7" Reel
MBD4448HADW	SOT-363	RFG	3K / 7" Reel
MBD4448HCDW	SOT-363	RFG	3K / 7" Reel
MBD4448HSDW	SOT-363	RFG	3K / 7" Reel
MBD4448HTW	SOT-363	RFG	3K / 7" Reel

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
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	I_{FSM}	@ $t = 1\mu s$	4
		@ $t = 1s$	1.5
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	°C

Note1. Device mounted on FR-4 PCB, 1 inch×0.85 inch×0.062 inch

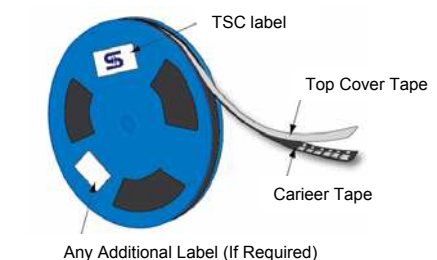
Small Signal Diode

Electrical Characteristics

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R=100\mu A$	$V_{(BR)}$	80	-	V
Forward Voltage	$I_F=5.0mA$ $I_F=10mA$ $I_F=100mA$ $I_F=150mA$	V_F	0.62 '- '- '-	0.72 0.855 1.0 1.25	V
Reverse Leakage Current	$V_R=70V$ $V_R=75V, T_J=150^\circ C$ $V_R=25V, T_J=150^\circ C$ $V_R=20V$	I_R	- - - '-	100.0 50.0 30 25	nA μA μA nA
Junction Capacitance	$V_R=6V, f=1 MHz$	C_J	-	3.5	pF
Reverse Recovery Time	$I_F=5mA, V_R=6V$	T_{rr}	-	4.0	ns

Notes: 2. Short duration test pulse used to minimize self-heating effect

Tape & Reel specification



Item	Symbol	Dimension(mm)
Carrier width	A	2.25 ±0.05
Carrier length	B	2.55 ±0.05
Carrier depth	C	1.20 ±0.05
Sprocket hole	d	1.50 ± 0.1
Reel outside diameter	D	178 ± 2
Reel inner diameter	D1	54.4±1
Feed hole width	D2	13.0 ± 1
Sprocket hole position	E	1.75 ±0.10
Punch hole position	F	3.50 ±0.1
Sprocket hole pitch	P0	4.00 ±0.1
Embossment center	P1	2.00 ±0.1
Tape width	W	9.5 ±1
Reel width	W1	12.3 ±1

