

## 1N4148W FAST SWITCHING DIODE



### Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching Application
- Plastic Material –UL Recognition Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams(approx.)
- Marking: T5

### Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

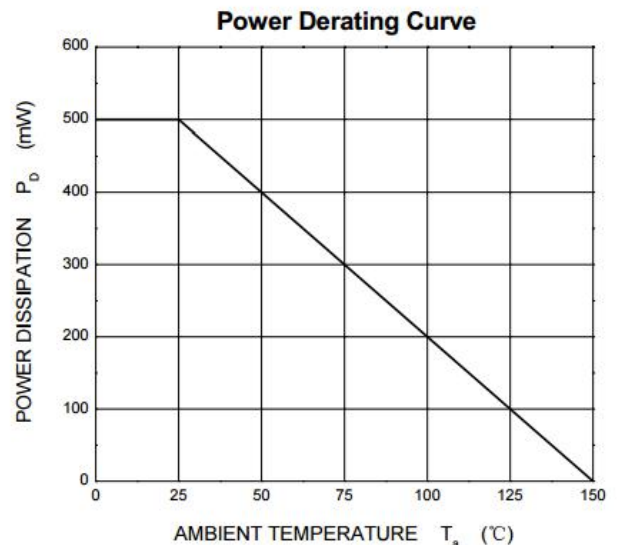
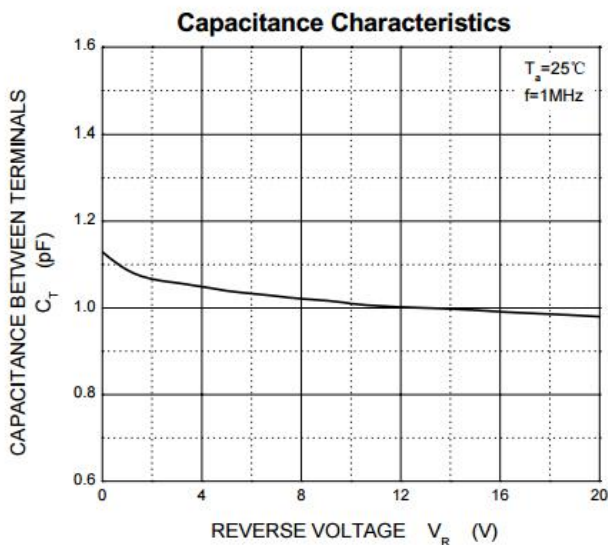
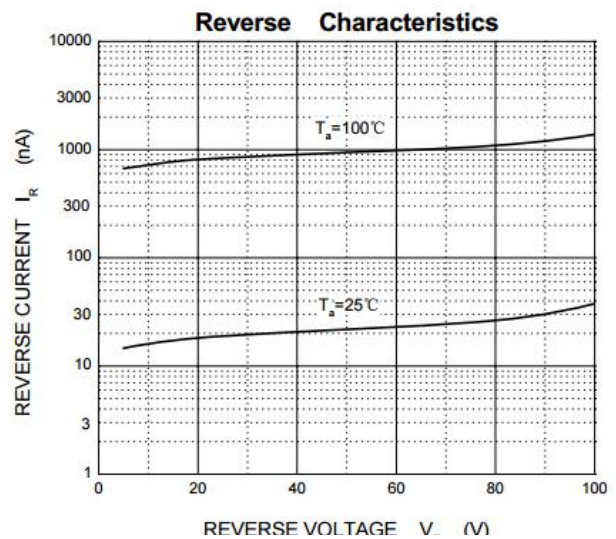
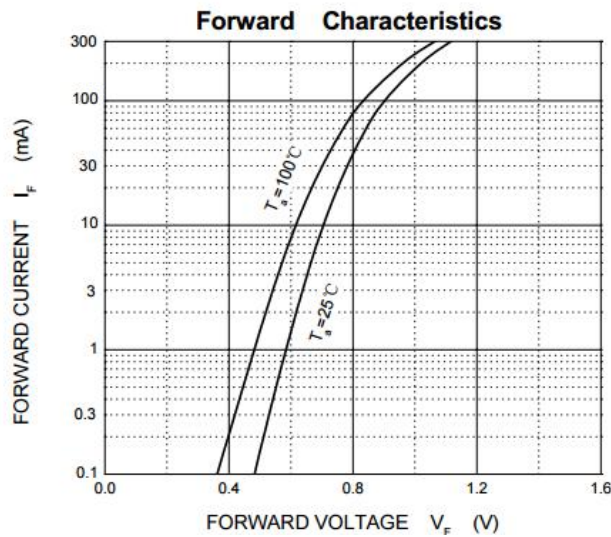
Characteristic	Symbol	1N4448W	Units
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RSM Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current(Note 1)	$I_F$	500	mA
Average Rectified Output Current(Note 1)	$I_O$	250	mA
Peak Forward Surge Current	$I_{FSM}$	4.0	A
@ $t=1.0\mu\text{s}$ @ $t=1.0\text{s}$		2.0	
Power Dissipation(Note 1)	$P_d$	500	mW
Typical Thermal Resistance, Junction to Ambient Air(Note 1)	$R_{\theta JA}$	357	K/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^\circ\text{C}$

**Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise specified**

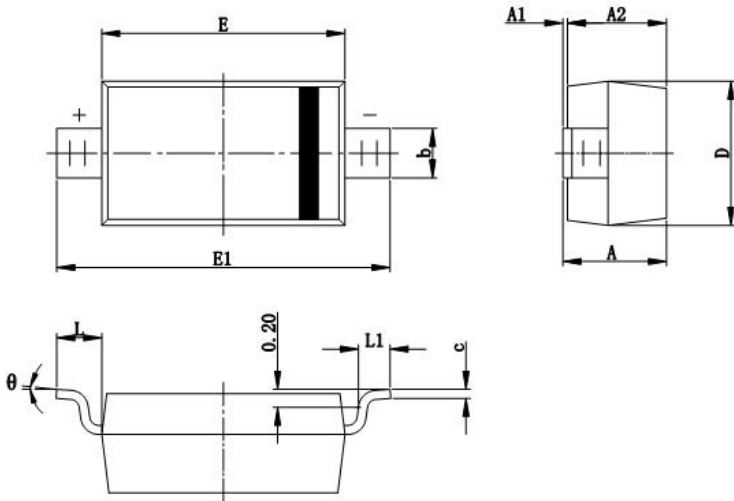
Characteristic	Symbol	1N4448W	Units
Forward Voltage @ $I_F=5\text{mA}$ @ $I_F=10\text{mA}$	$V_{FM}$	0.72 1.0	V
Reverse Leakage Current @ $V_R=20\text{V}$ @ $V_R=75\text{V}$	$I_{RM}$	25 5.0	nA uA
Junction Capacitance ( $V_R=0\text{V}$ , $f=1.0\text{MHz}$ )	$C_j$	4.0	pF
Reverse Recovery Time(Note 2)	$t_{rr}$	4.0	ns

Note: 1. Valid provided that terminals are kept at ambient temperature.  
2. Measured with  $I_F=I_R=10\text{mA}$ ,  $I_{RR}=0.1 \times I_R$ ,  $R_L=100\Omega$

**Ratings and Characteristics Curves**



**Mechanical Dimensions SOD-123**



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF.		0.020 REF.	
L1	0.250	0.450	0.010	0.018
$\theta$	0°	8°	0°	8°

**Ordering Information**

Device	Package	Shipping
1N4448W	SOD-123 (Pb-Free)	3000pcs / reel

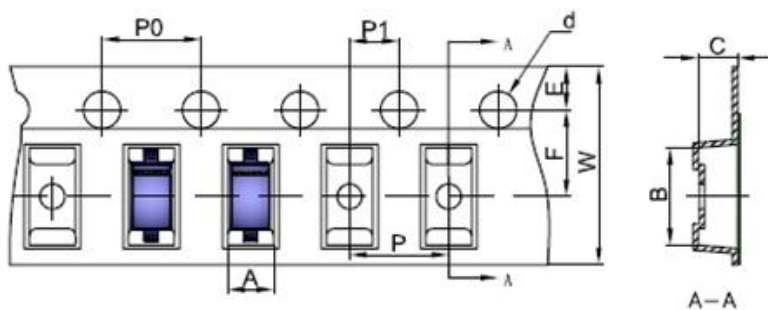
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



T5 = Marking code

**Carrier Tape Specification SOD-123**



SYMBOL	Millimeters	
	Min.	Max.
A	1.80	1.90
B	3.89	3.99
C	1.52	1.62
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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