1N4448W FAST SWITCHING DIODE

SOD-123

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-O
- 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˚C unless otherwise specified

Characteristic	Symbol	1N4448W	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RSM Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current(Note 1)	I_F	500	mA
Average Rectified Output Current(Note 1)	Io	250	mA
Peak Forward Surge Current @t=1.0us @t=1.0s	I_{FSM}	4.0 2.0	A
Power Dissipation(Note 1)	P_d	400	mW
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	315	K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	˚C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	1N4448W	Units
Forward Voltage @I_F= 5mA @I_F=10mA @I_F=100mA @I_F=150mA	V_{FM}	0.72 0.855 1.00 1.25	V
Reverse Leakage Current @V_R=20V @V_R=75V	I_{RM}	25 2.5	nA uA
Junction Capacitance (V_R=0V, f=1.0MHz)	Cj	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=10mA, I_{RR}=0.1×I_R, R_L=100Ω

Ratings and Characteristics Curves

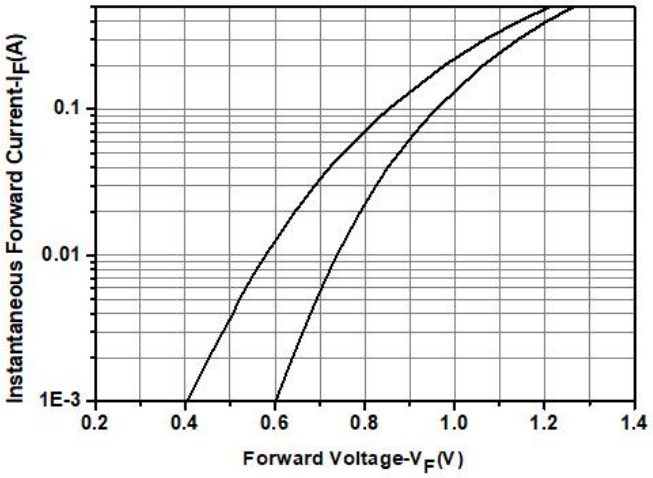


Fig.1-Typical Forward Voltage Characteristics

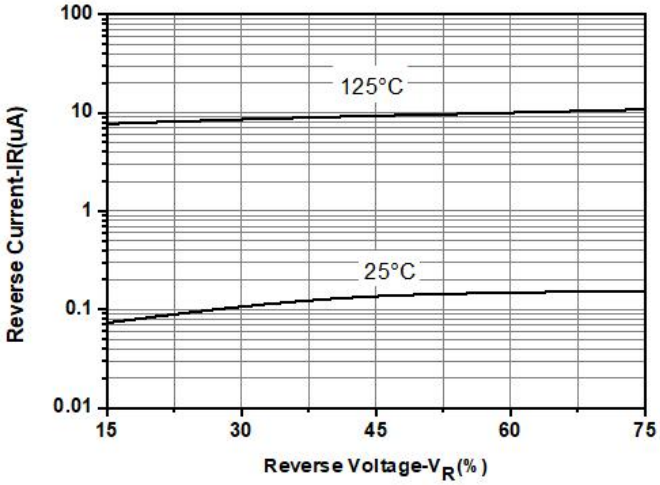


Fig.2-Typical Reverse Characteristics

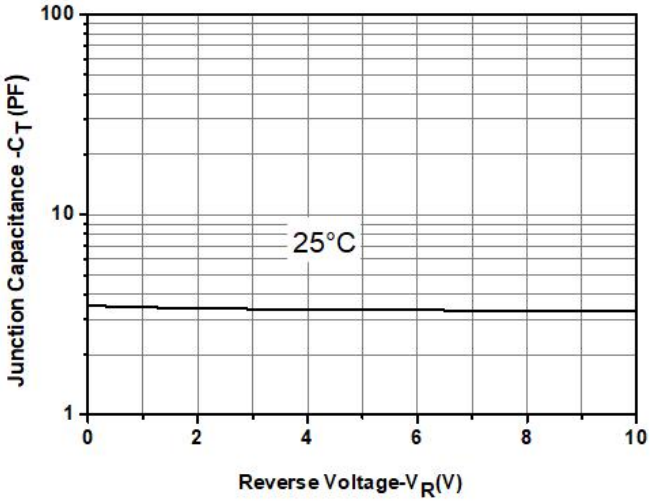


Fig.3-Capacitance vs. Reverse Voltage

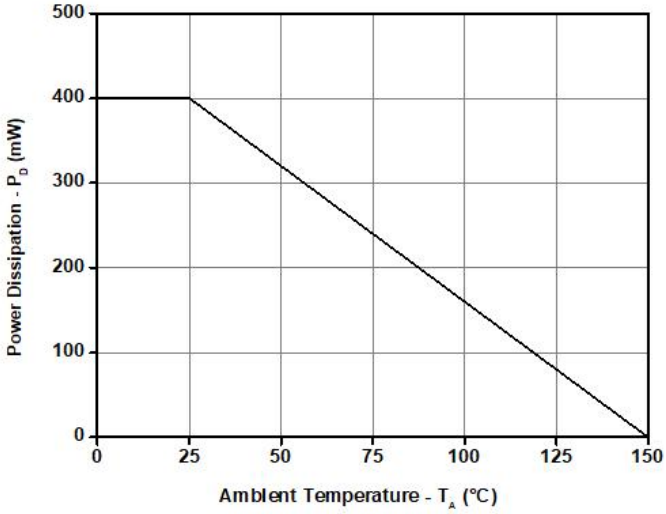
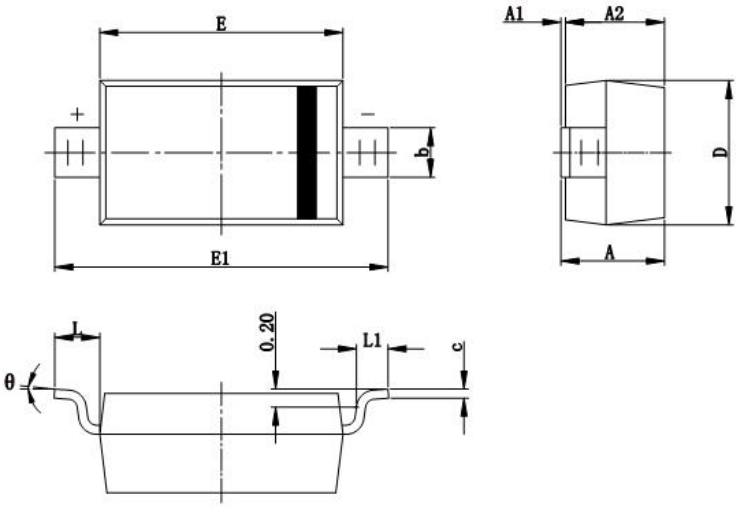


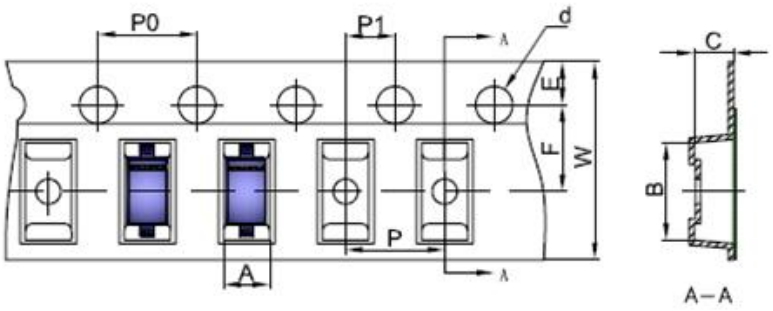
Fig.4- Power Derating Curve

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
θ	0°	8°	0°	8°

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

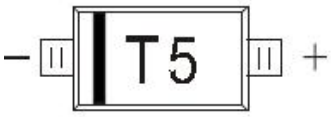
Technical Data
Data Sheet N0578, Rev. C

Ordering Information

Device	Package	Shipping
1N4448W	SOD-123 (Pb-Free)	3000pcs / reel
1N4448WTR	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

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