

1N4148W

ROHS

Plastic-Encapsulate Switching Diode

Features

- ◆ Fast Switching Speed
- ◆ High Conductance
- ◆ For General Purpose Switching Applications
- ◆ Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- ◆ Case: SOD-123
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Polarity: Color Band Denotes Cathode End
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Device Marking: T4

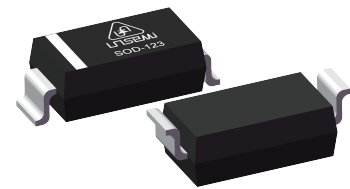
Mechanical Characteristics

Parameter	Symbol	Value	Units
Repetitive Peak Reverse Voltage	VRRM	100	V
Reverse Voltage	VR	100	V
Forward Continuous Current	IFM	0.3	A
Average Rectified Output Current	IO	0.15	A
Non-Repetitive Peak Forward Surge Current @t=8.3ms	IFSM	2.0	A
Power Dissipation	PD	0.35	W
Thermal Resistance Junction to Ambient	R _{θJA}	250	°C/W
Junction Temperature Range	TJ	-55~+150	°C
Storage Temperature Range	Tstg	-55~+150	°C



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SOD-123



Functional Diagram



Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Test Conditions	Value		Units
			Min.	Max.	
Reverse Current	IR	VR=20V	-	0.025	μA
		VR=75V	-	1.0	
Forward Voltage	VF	IF=1.0mA	-	0.715	V
		IF=10mA	-	0.855	
		IF=50mA	-	1.0	
		IF=150mA	-	1.25	
Capacitance Between Terminals	CT	VR=0V, f=1MHz	-	2.0	pF
Reverse Recovery Time	trr	IF=IR=10mA , Irr=0.1XIR , RL=100Ω	-	4.0	nS

Electrical Characteristics Curves

Fig.1 Forward Characteristics

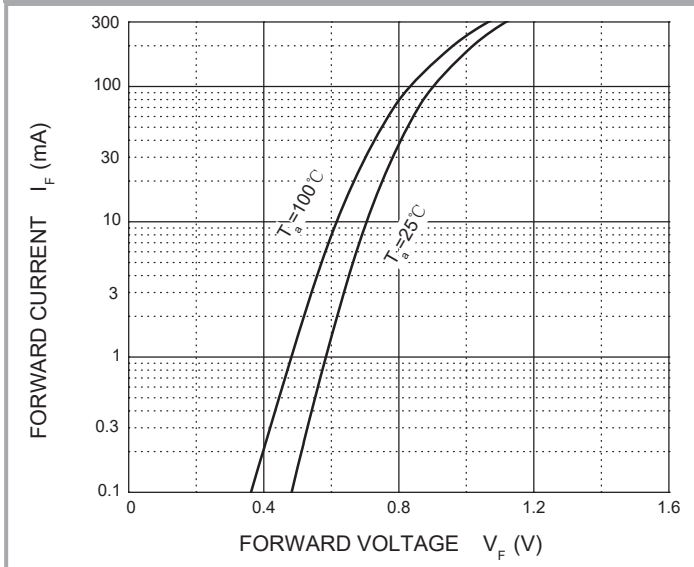


Fig. 2 Reverse Characteristics

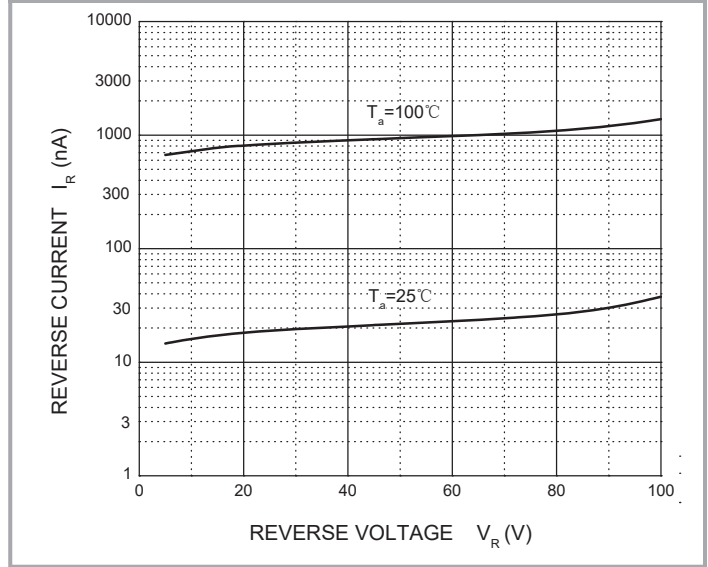


Fig.3 Capacitance Characteristics

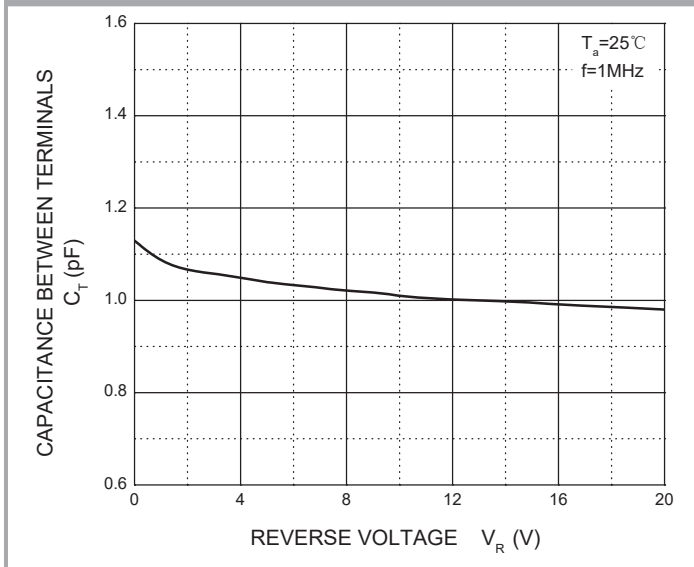
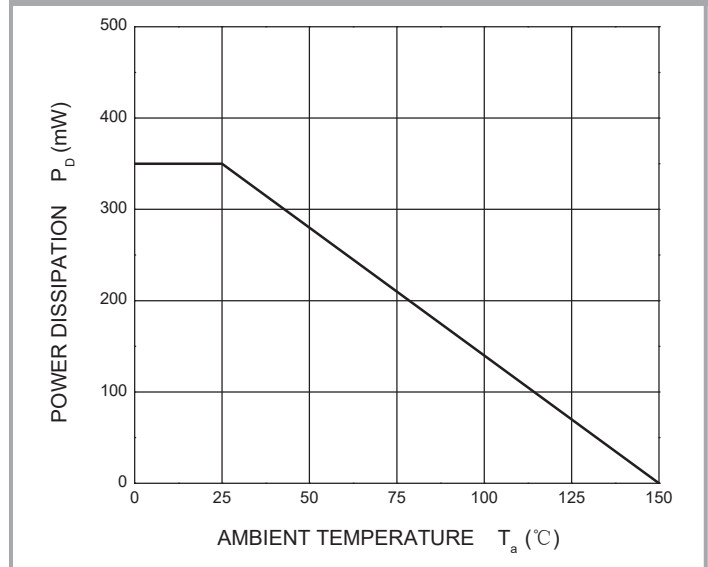
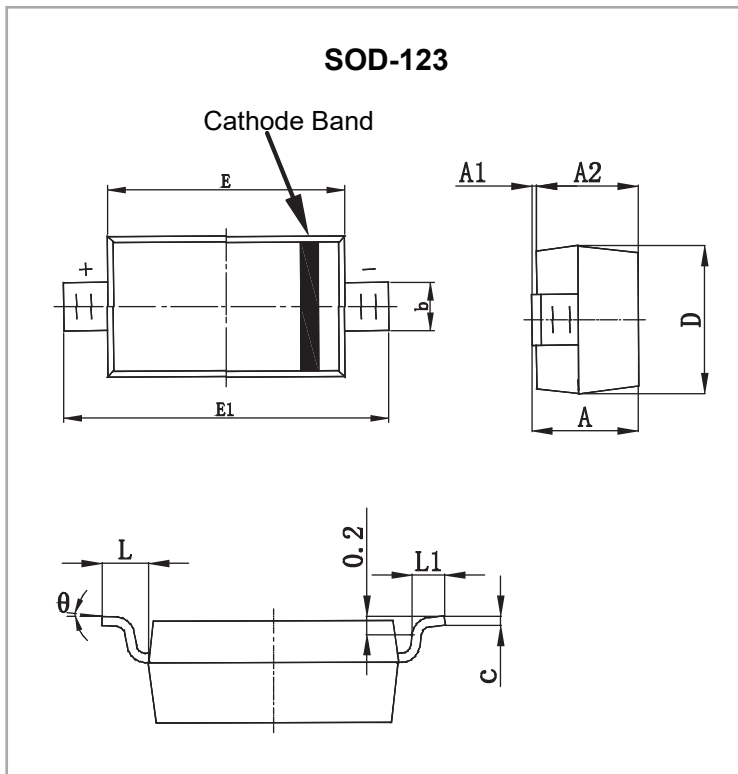


Fig. 4 Power Derating Curve





Package Outline & Dimensions



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

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