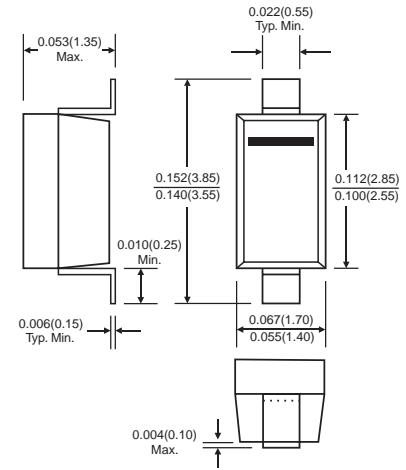




SOD-123



Dimensions in inches and (millimeters)

Features

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

Mechanical Data

- ✦ Case: SOD-123, Molded Plastic
- ✦ Polarity: Cathode Band
- ✦ Marking: Date Code only or Date Code and Type Code
Type Code: T4
- ✦ Weight: 0.01 grams (approx.)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

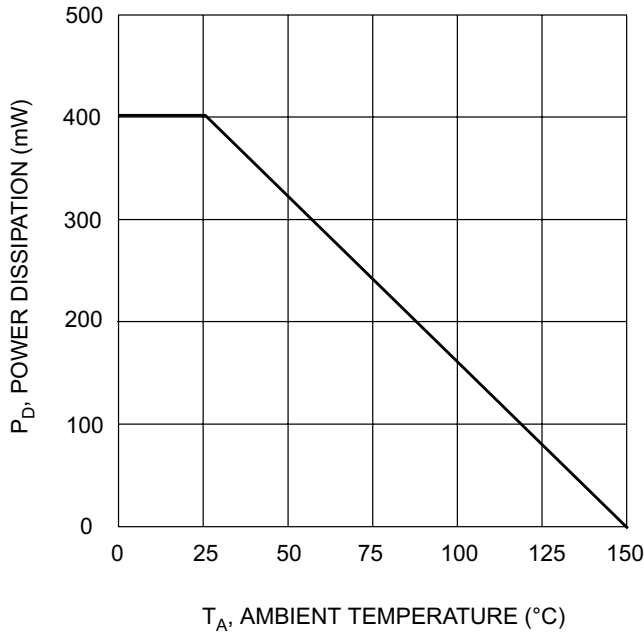
Maximum Ratings

Type Number	Symbol	1N4148W	Unit
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
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 1)	I_{FM}	300	mA
Average Rectified Output Current (Note 1)	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu s$ @ $t = 1.0s$	I_{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P_d	350	mW
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	°C

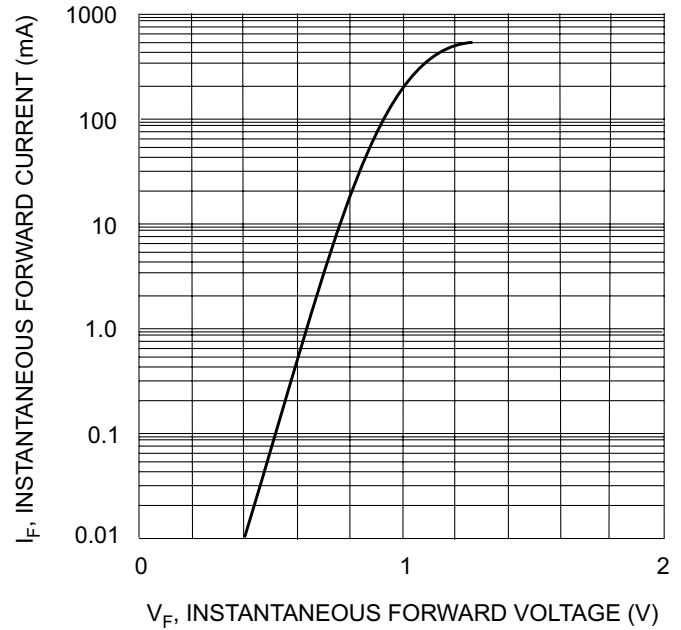
Electrical Characteristics

Type Number	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	V_{FM}	—	0.715 0.855 1.0 1.25	V	$I_F = 1.0mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$
Maximum Peak Reverse Current	I_{RM}	—	2.5 50 30 25	μA μA μA nA	$V_R = 75V$ $V_R = 75V, T_j = 150^\circ C$ $V_R = 25V, T_j = 150^\circ C$ $V_R = 20V$
Junction Capacitance	C_j	—	2.0	pF	$V_R = 0, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	—	4.0	ns	$I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

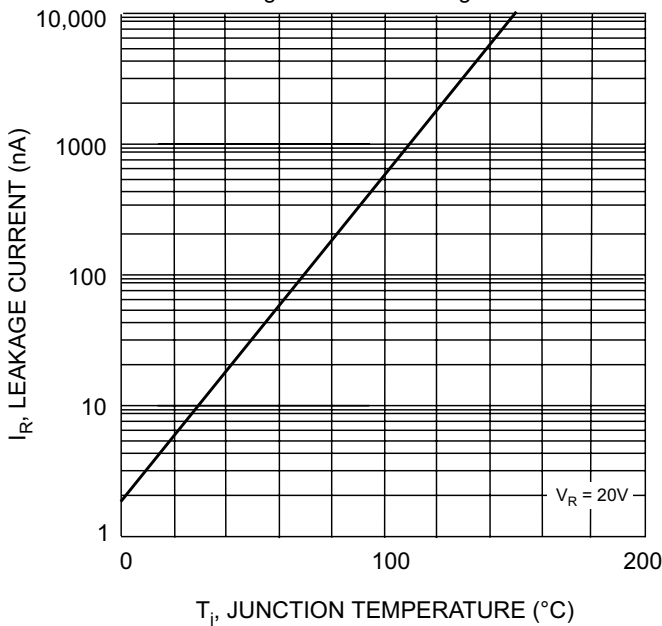
Notes: 1. Valid provided that terminals are kept at ambient temperature.



T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Forward Characteristics



T_j , JUNCTION TEMPERATURE (°C)
Fig. 3 Leakage Current vs Junction Temperature

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-123	3000/REEL	90000	40X20X22	5.00	4.00