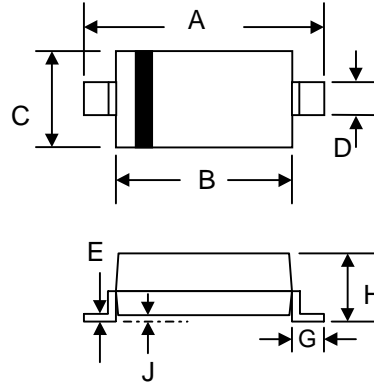


SURFACE MOUNT FAST SWITCHING DIODE

Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOD-123		
Dim	Min	Max
A	3.6	3.9
B	2.5	2.8
C	1.4	1.8
D	0.5	0.7
E	—	0.2
G	0.4	—
H	0.95	1.35
J	—	0.12
All Dimensions in mm		

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: A2

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

Characteristic	Symbol	Value	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 @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	I_{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P_d	410	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	315	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	Value	Unit
Forward Voltage Drop @ $I_F = 10\text{mA}$	V_{FM}	1.0	V
Peak Reverse Leakage Current @ $V_R = 20\text{V}$ @ $V_R = 75\text{V}$	I_{RM}	25 5.0	nA μA
Typical Junction Capacitance ($V_R = 0\text{V DC}, f = 1.0\text{MHz}$)	C_j	2.0	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 $I_F = I_R = 10\text{mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100\Omega$.

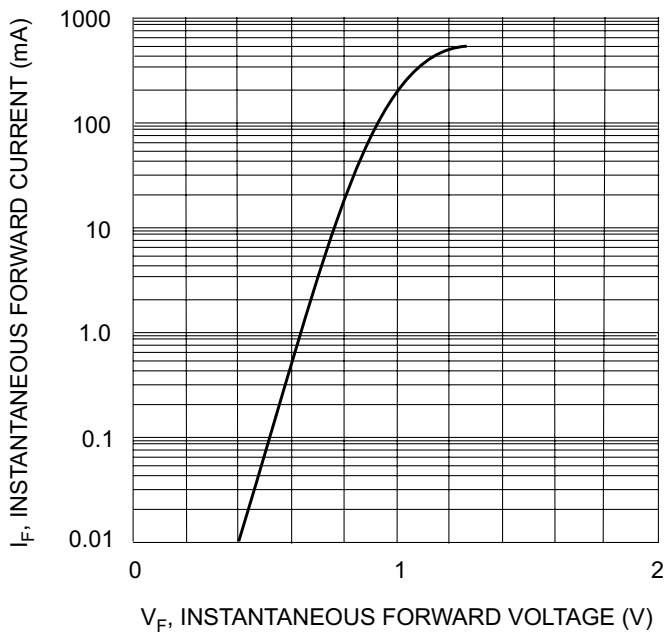


Fig. 1 Forward Characteristics

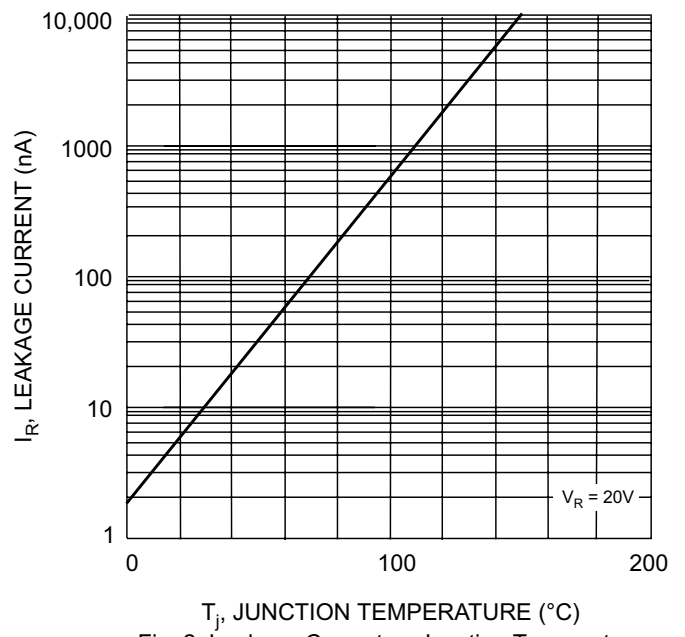


Fig. 2 Leakage Current vs Junction Temperature

ORDERING INFORMATION

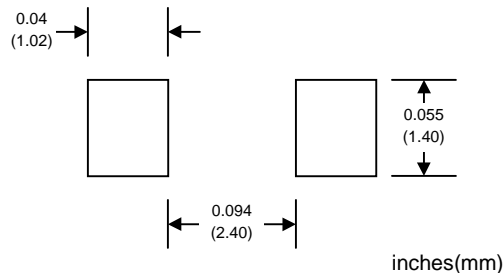
Product No.♦	Package Type	Shipping Quantity
1N4148W-T1	SOD-123	3000/Tape & Reel
1N4148W-T3	SOD-123	10000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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