

Surface Mount Switching Diode

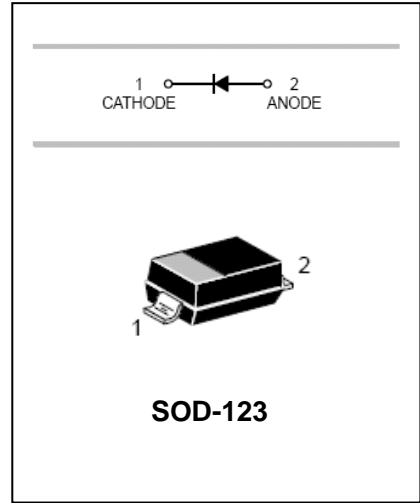
1N4148W

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited For Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- MSL 1

APPLICATIONS

- Surface mount fast switching diode.



ORDERING INFORMATION

Type No.	Marking	Package Code
1N4148W	T4	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_o	200	mA
Forward Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @t=1.0 μs @t=1.0 s	I_{FSM}	2.0 1.0	A
Power Dissipation	P_d	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Thermal Resistance Junction to Case	$R_{\theta JC}$	225	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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

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

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

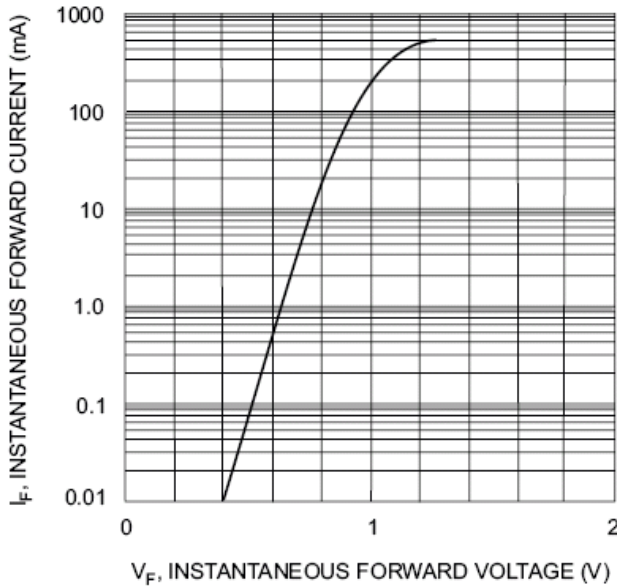


Fig. 1 Forward Characteristics

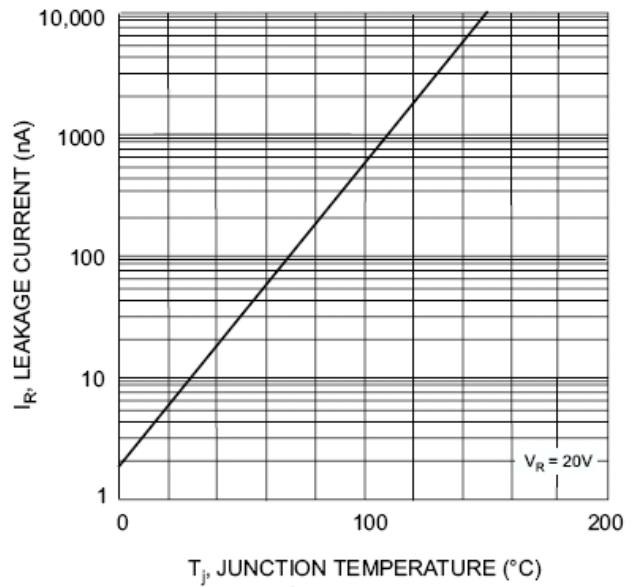


Fig. 2 Leakage Current vs Junction Temperature

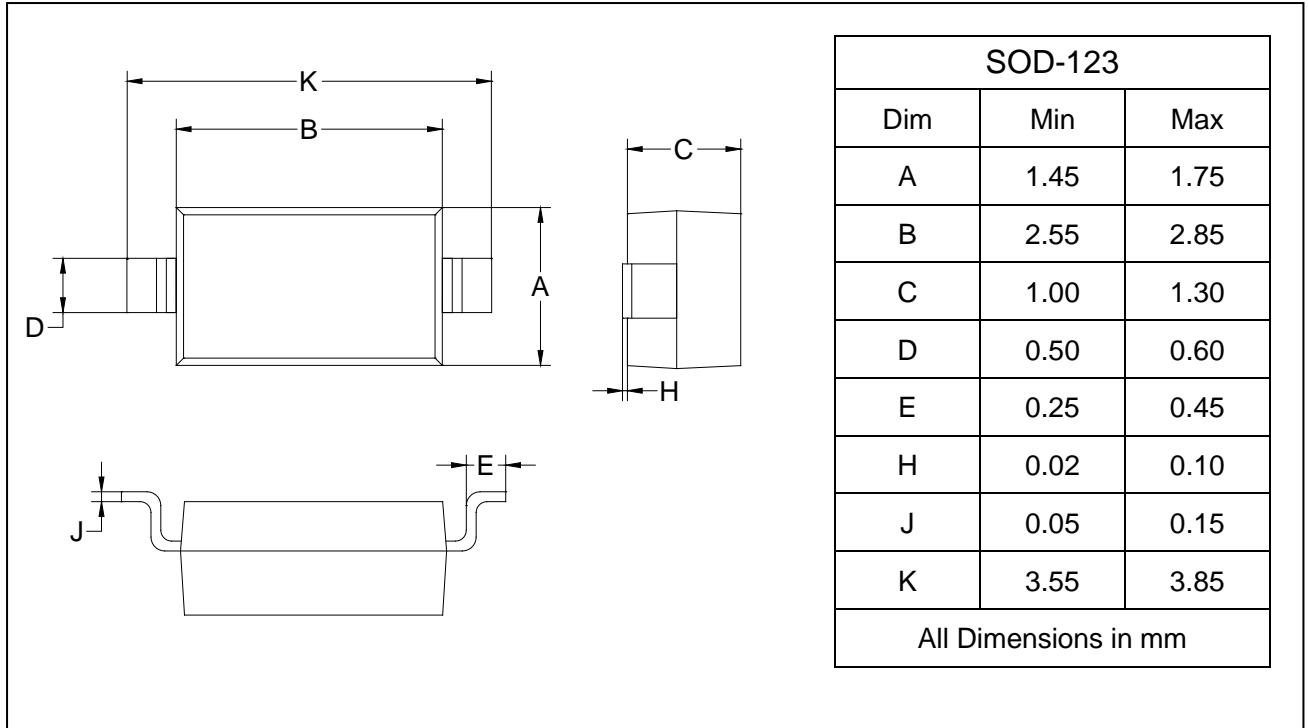
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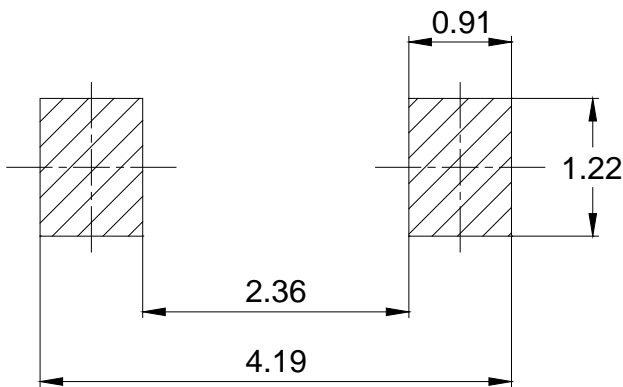
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
1N4148W	SOD-123	3000pcs / Tape & Reel