

1N4148W FAST SWITCHING DIODE



Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- 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
- Marking: T4
- Weight: 0.01 grams(approx)

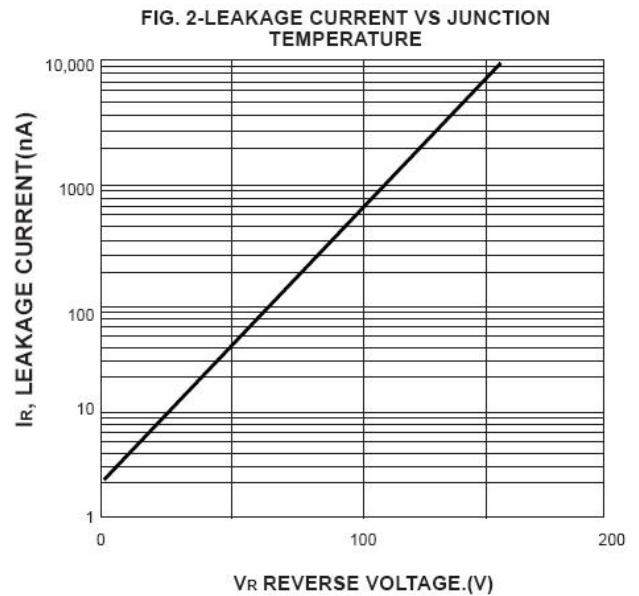
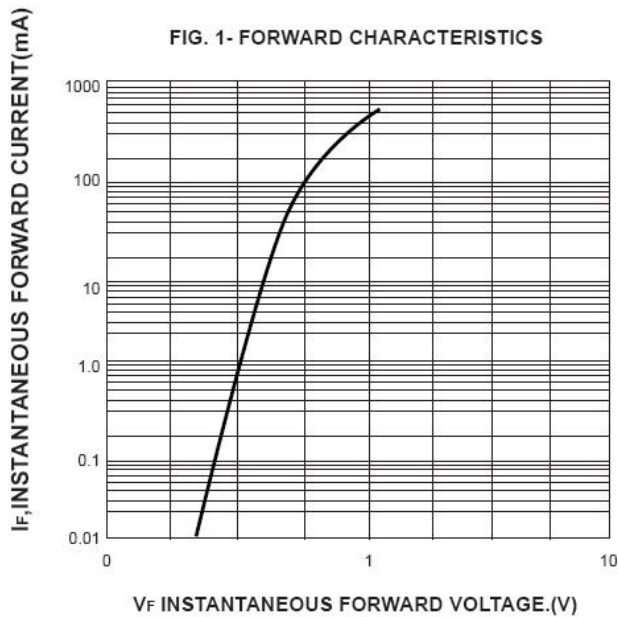
Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	Limits	Unit
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	I_F	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	400	mW
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	315	$^{\circ}\text{C/W}$
Junction Temperature Range	T_J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

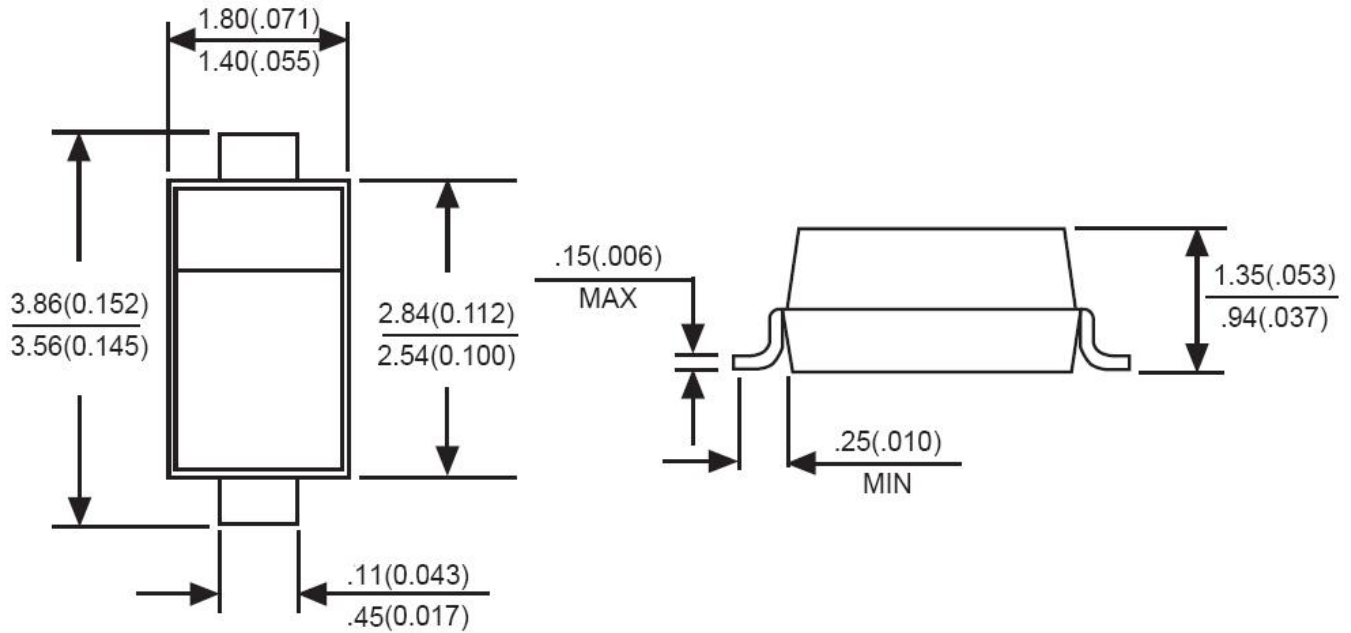
Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage	V_{FM}	-	0.715 0.855 1.00 1.25	V	@ $I_F=1\text{mA}$ @ $I_F=10\text{mA}$ @ $I_F=50\text{mA}$ @ $I_F=150\text{mA}$
Reverse Leakage Current	I_{RM}	-	2.5 25	μA nA	@ $V_R=75\text{V}$ @ $V_R=20\text{V}$
Capacitance	C_T	-	2	pF	$V_R=0\text{V}$, $f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$

Ratings and Characteristics Curves



Mechanical Dimensions SOD-123(Millimeters/Inches)



Ordering Information

Device	Package	Shipping
1N4148W	SOD-123 (Pb-Free)	3000pcs / reel

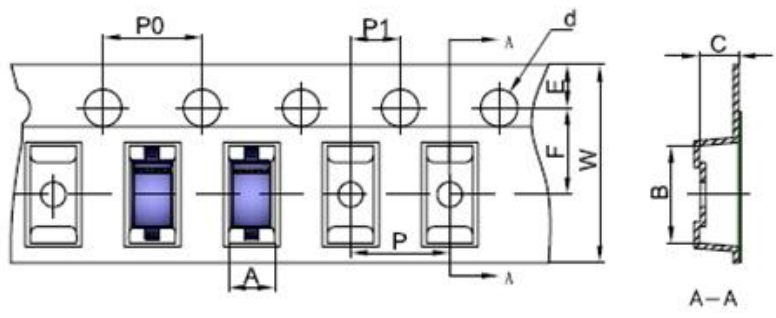
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



T4 = Marking code

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

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