

1N4148W FAST SWITCHING DIODE



Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- This is a Halogen 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
- Weight: 0.01 grams(approx)

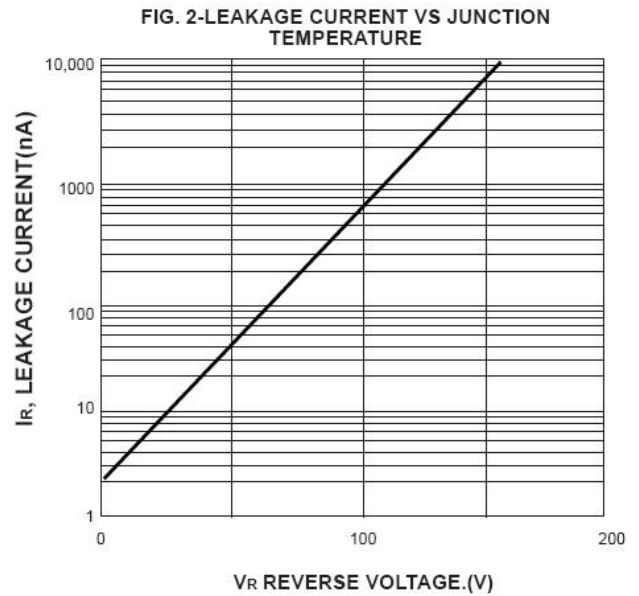
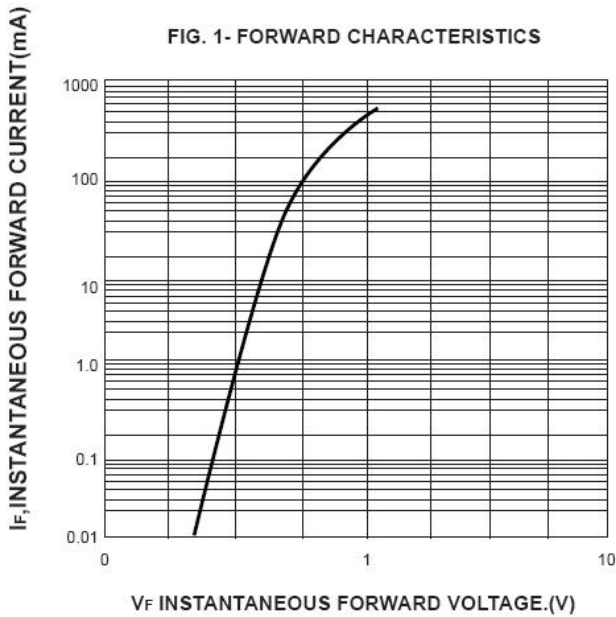
Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

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	$^{\circ}\text{C}$

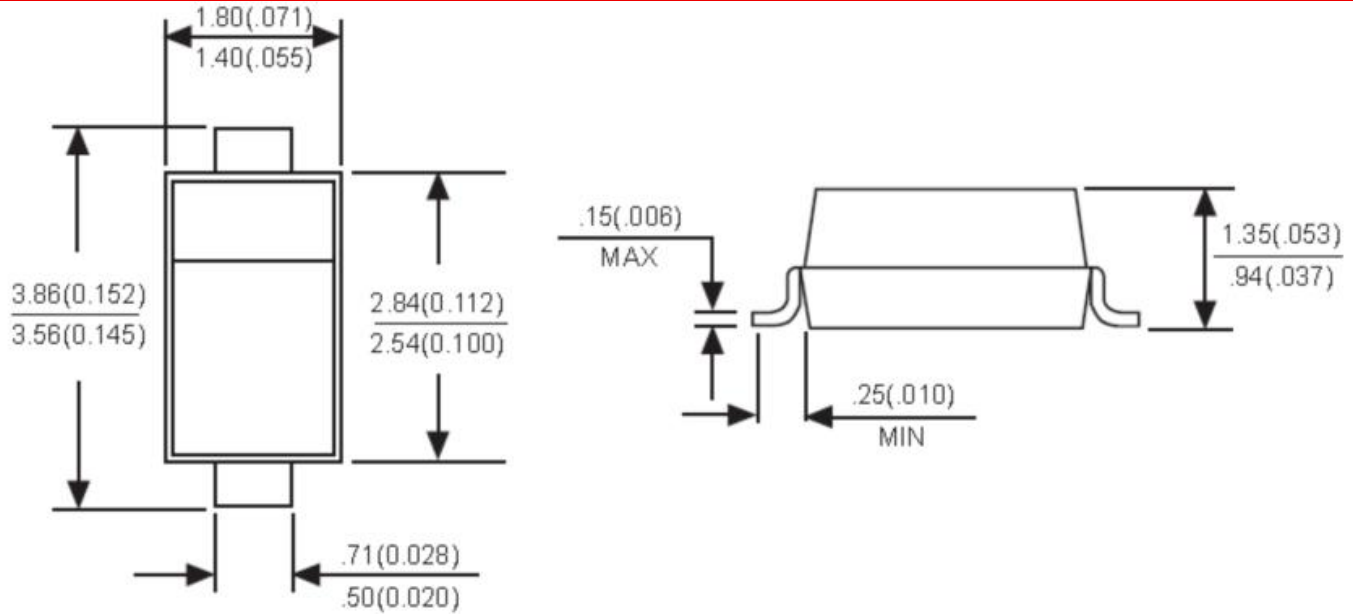
Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage	V _{FM}	-	0.715 0.855 1.00 1.25	V	@I _F =1mA @I _F =10mA @I _F =50mA @I _F =150mA
Reverse Leakage Current	I _{RM}	-	2.5 25	uA nA	@V _R =75V @V _R =20V
Capacitance	C _T	-	2	pF	V _R =0V, f=1.0MHz
Reverse Recovery Time	t _{rr}	-	4	ns	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω

Ratings and Characteristics Curves



Mechanical Dimensions SOD-123(Millimeters/Inches)

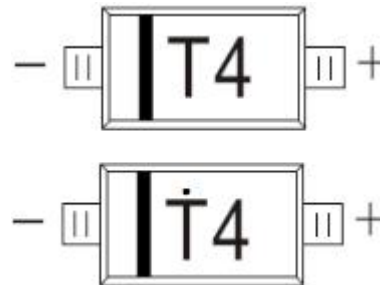


Ordering Information

Device	Package	Shipping
1N4148W	SOD-123	3000pcs / reel

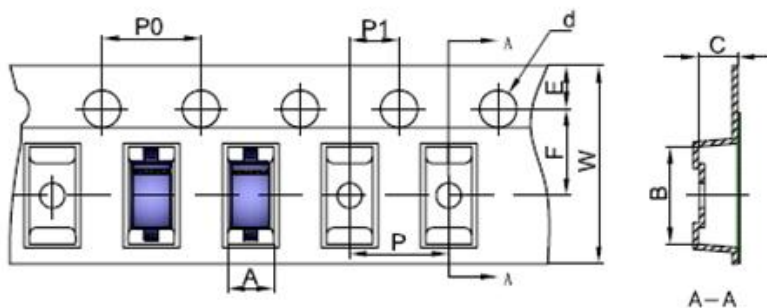
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



The marking bar indicates the cathode
Solid dot = Green molding compound device, if none, the normal device.

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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