

1N4148WS SURFACE MOUNT FAST SWITCHING DIODE



Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- Small Package
- For General Purpose Switching Application
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOD-323, Molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.04 grams(approx)

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	Limits	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_F	300	mA
Average Rectified Output Current(Note 1)	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @t=1.0us @t=1.0s	I_{FSM}	2.0 1.0	A
Power Dissipation(Note 1)	P_D	200	mW
Typical Thermal Resistance, Junction to Ambient(Note 1)	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

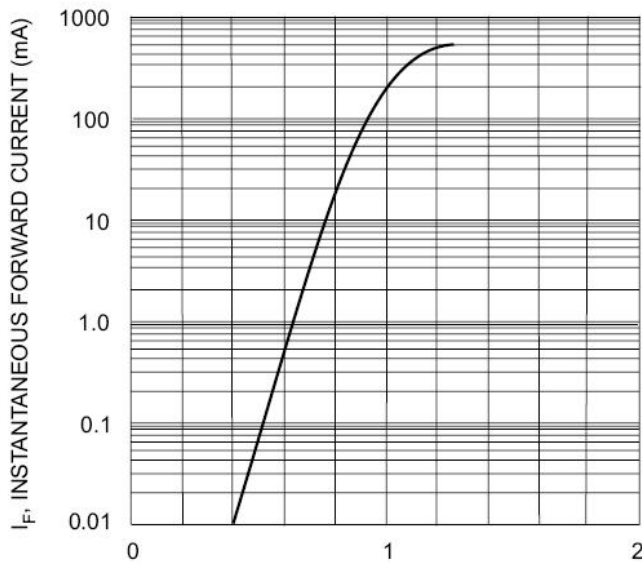
Note: 1. Valid provided that terminals are kept at ambient temperature.

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage*	V _{FM}	-	0.715 0.855 1.0 1.25	V	@I _F =1.0mA @I _F =10mA @I _F =50mA @I _F =150mA
Reverse Leakage Current*	I _{RM}	-	2.5	uA	@V _R =75V
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} =0.1XI _R , R _L =100Ω

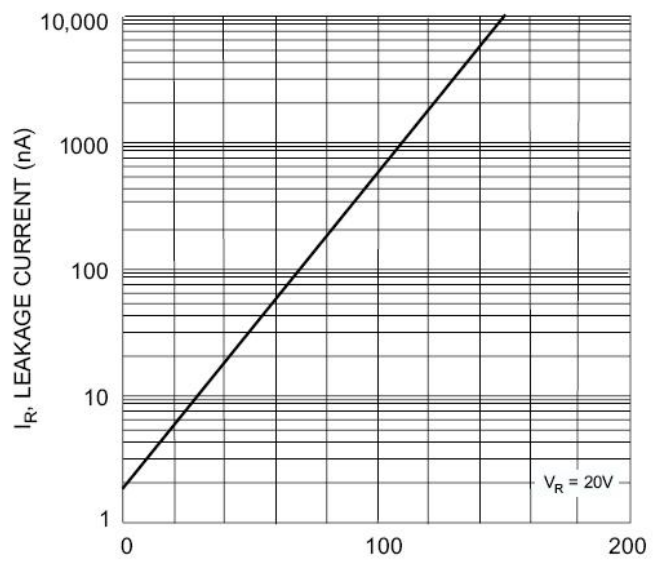
* Pulse width < 300 μs, duty cycle < 2%

Ratings and Characteristics Curves



V_F, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 1 Forward Characteristics



T_j, JUNCTION TEMPERATURE (°C)

Fig. 2 Leakage Current vs Junction Temperature

Ordering Information

Device	Package	Shipping
1N4148WS	SOD-323	3000pcs / reel
1N4148WSTR	SOD-323	3000pcs / reel

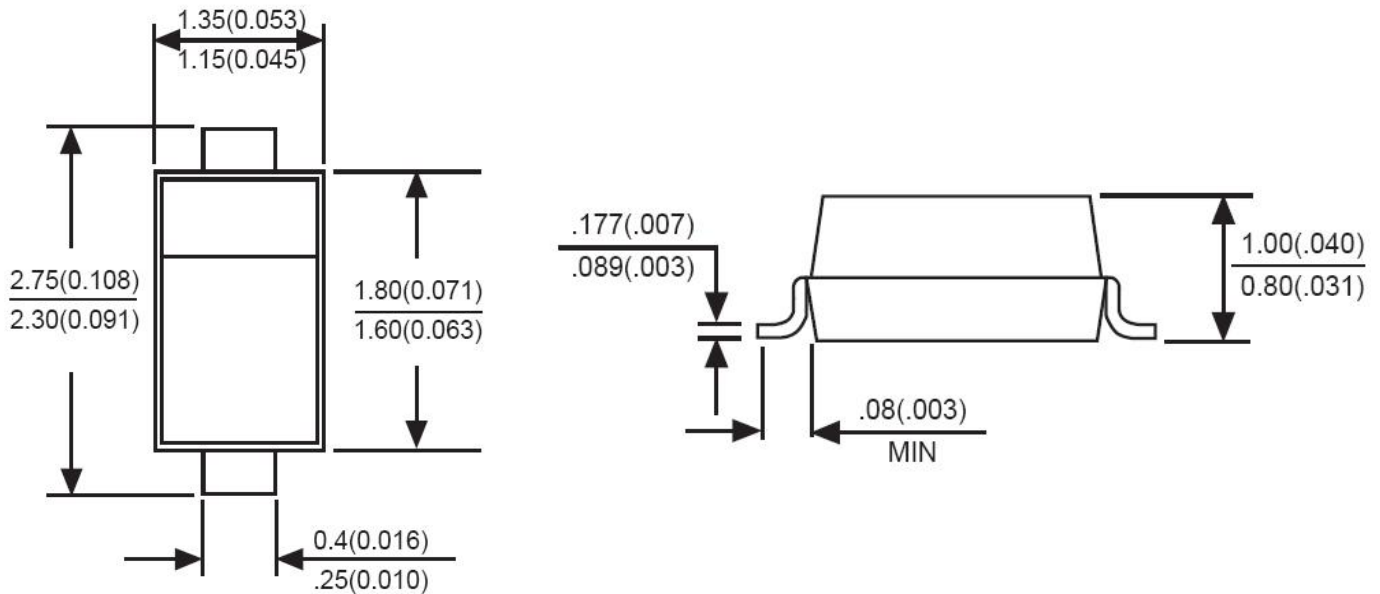
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

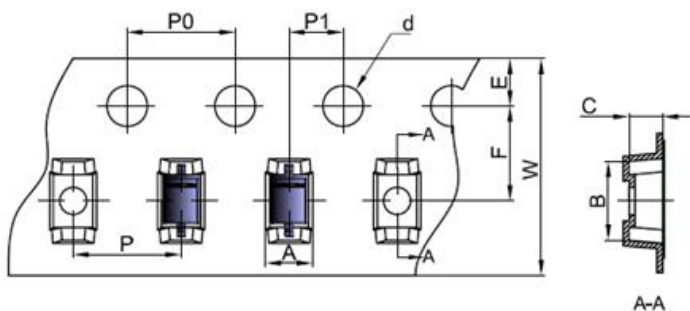


T4 = Marking Code

Mechanical Dimensions SOD-323(Inches/Millimeters)



Carrier Tape Specification SOD-323



SYMB OL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
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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