

## 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 Pb – 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<sub>A</sub>=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

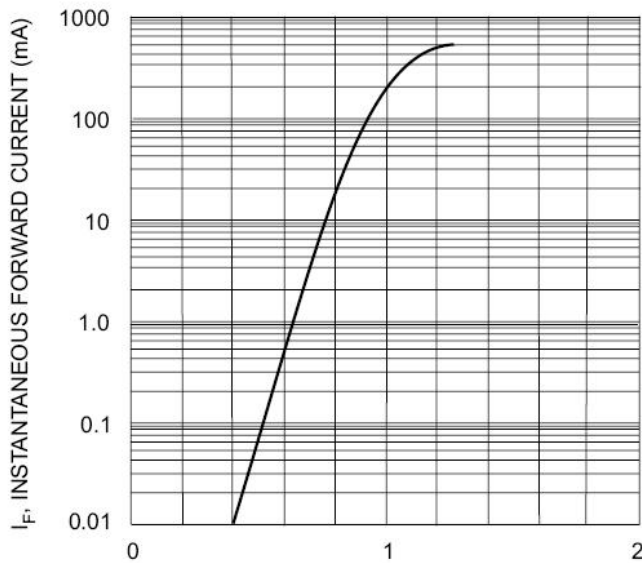
Note: 1. Valid provided that terminals are kept at ambient temperature.

**Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage*	V <sub>FM</sub>	-	0.715 0.855 1.0 1.25	V	@I <sub>F</sub> =1.0mA @I <sub>F</sub> =10mA @I <sub>F</sub> =50mA @I <sub>F</sub> =150mA
Reverse Leakage Current*	I <sub>RM</sub>	-	2.5	uA	@V <sub>R</sub> =75V
Capacitance	C <sub>T</sub>	-	2	pF	V <sub>R</sub> =0V, f=1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	-	4	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1XI <sub>R</sub> , R <sub>L</sub> =100Ω

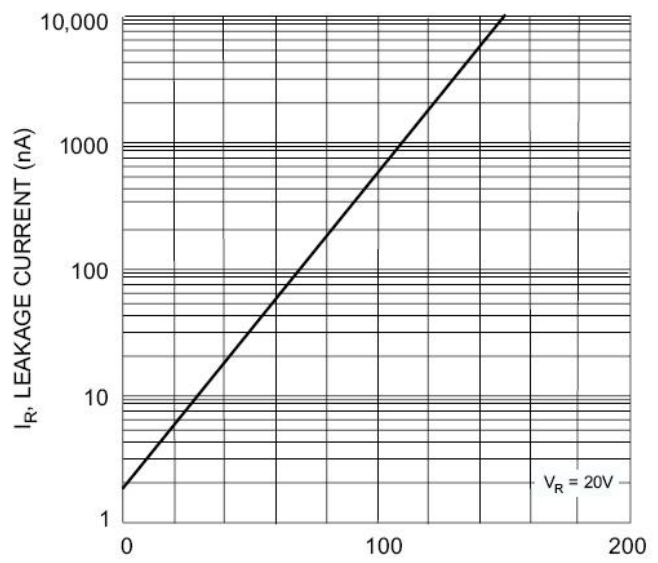
\* Pulse width < 300 μs, duty cycle < 2%

**Ratings and Characteristics Curves**



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 1 Forward Characteristics



T<sub>j</sub>, JUNCTION TEMPERATURE (°C)

Fig. 2 Leakage Current vs Junction Temperature

**Ordering Information**

Device	Package	Shipping
1N4148WS	SOD-323 (Pb-Free)	3000pcs / reel

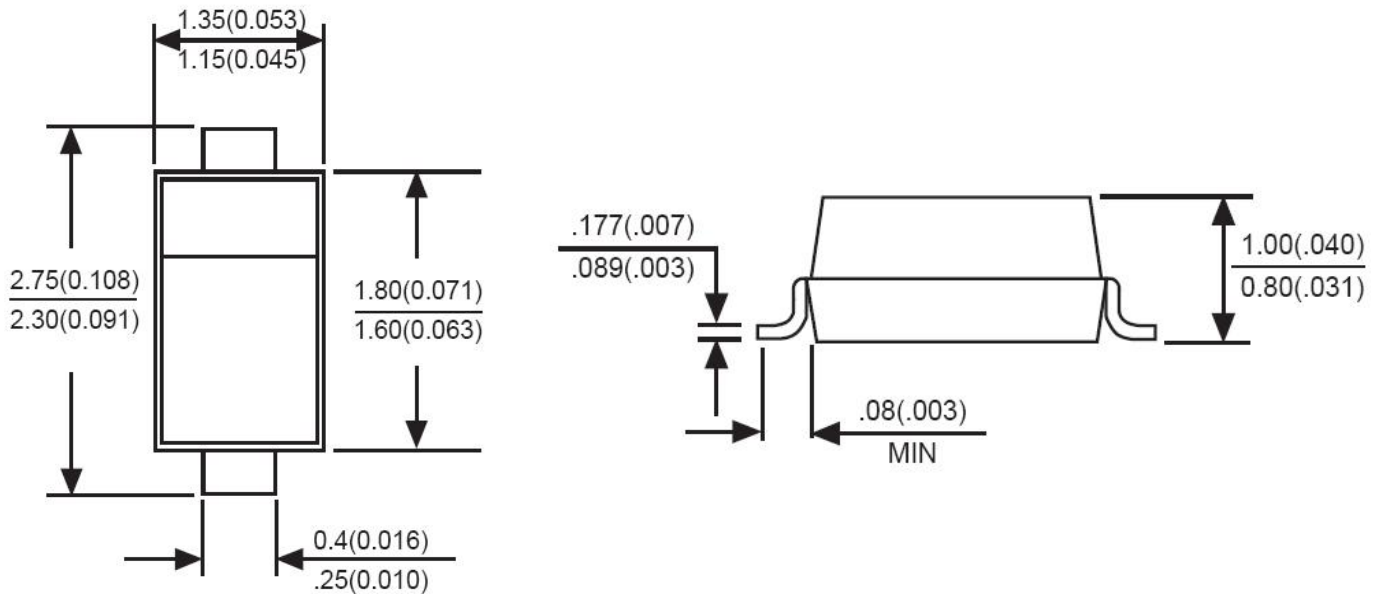
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**

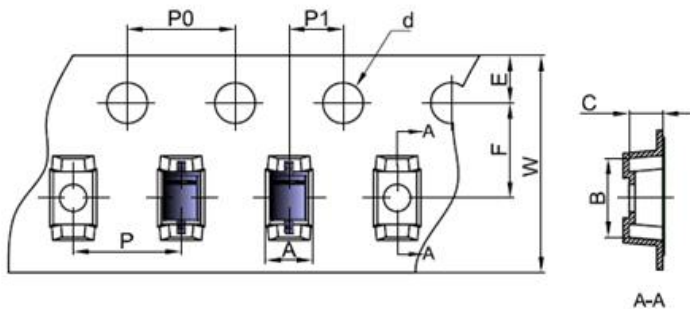


T4 = Marking Code

**Mechanical Dimensions SOD-323**



**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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