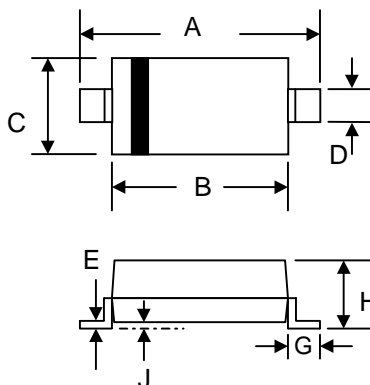


## SURFACE MOUNT FAST SWITCHING DIODE

### Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOD-123		
Dim	Min	Max
A	3.6	3.9
B	2.5	2.8
C	1.4	1.8
D	0.5	0.7
E	—	0.2
G	0.4	—
H	0.95	1.35
J	—	0.12
All Dimensions in mm		

### 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.)
- Marking: 1N4150W A4  
1N4151W A5
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	1N4150W	1N4151W	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	50	75	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50		V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35		V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	400	300	mA
Average Rectified Output Current (Note 1)	I <sub>O</sub>	200	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>	4.0 1.0	2.0 0.5	A
Power Dissipation (Note 1)	P <sub>d</sub>	410	500	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	300		K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150		°C

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

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Characteristic	Symbol	1N4150W	1N4151W	Unit
Forward Voltage Drop (Note 4)	V <sub>FM</sub>	1.0		V
Peak Reverse Leakage Current @ V <sub>R</sub> = 50V	I <sub>RM</sub>	100	50	nA
Typical Junction Capacitance (V <sub>R</sub> = 0V DC, f = 1.0MHz)	C <sub>j</sub>	2.5	2.0	pF
Reverse Recovery Time (Note 2, 3)	t <sub>rr</sub>	4.0	2.0	nS

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

2. 1N4150W: Measured with I<sub>F</sub> = I<sub>R</sub> = 200mA, I<sub>RR</sub> = 0.1 x I<sub>R</sub>, R<sub>L</sub> = 100Ω.

3. 1N4151W: Measured with I<sub>F</sub> = I<sub>R</sub> = 10mA, I<sub>RR</sub> = 1.0 x I<sub>R</sub>, R<sub>L</sub> = 100Ω.

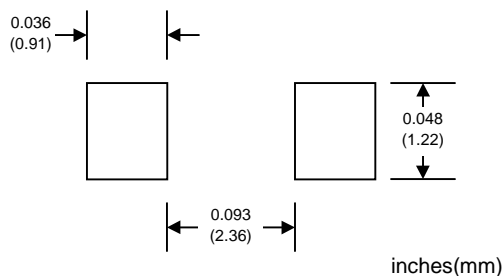
4. 1N4150W: Measured with I<sub>F</sub> = 200mA. 1N4151W: Measured with I<sub>F</sub> = 10mA

## MARKING INFORMATION



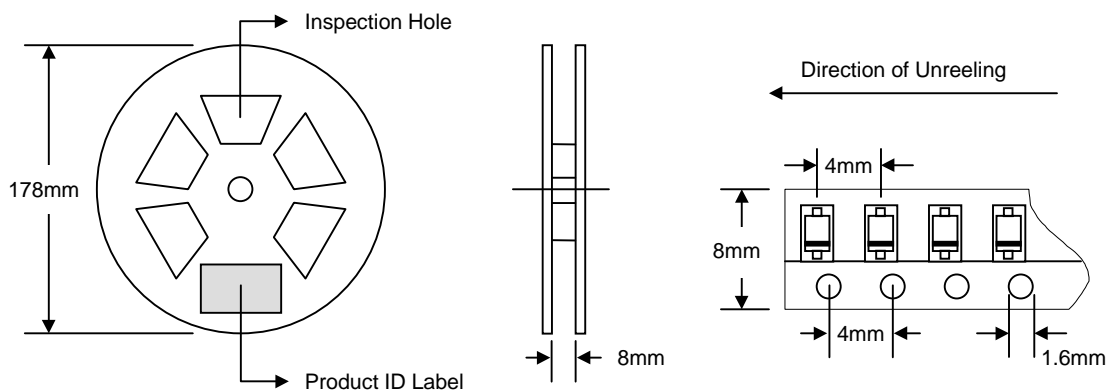
Cathode = Polarity Band  
 Ax = Device Code  
 x = 4 (1N4150W) or 5 (1N4151W)

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

**Note:** 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.  
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
1N4150W-T1	SOD-123	3000/Tape & Reel
1N4151W-T1	SOD-123	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, 1N4150W-T1-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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