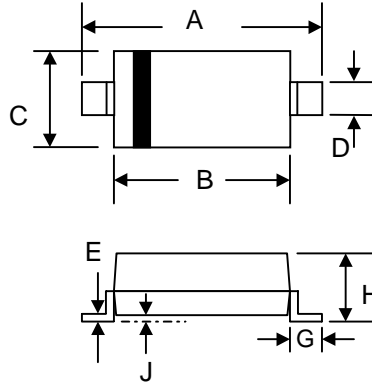


Features

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

| Characteristic | Symbol | 1N4150W | 1N4151W | Unit |
|---|---------------------------------|-------------|------------|--------------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 50 | 75 | V |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 50 | | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | | V |
| Forward Continuous Current (Note 1) | I_{FM} | 400 | 300 | mA |
| Average Rectified Output Current (Note 1) | I_O | 200 | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$ | I_{FSM} | 4.0 1.0 | 2.0 0.5 | A |
| Power Dissipation (Note 1) | P_d | 410 | 500 | mW |
| Typical Thermal Resistance, Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 300 | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | | $^{\circ}\text{C}$ |

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

| Characteristic | Symbol | 1N4150W | 1N4151W | Unit |
|---|----------|---------|---------|------|
| Forward Voltage Drop (Note 4) | V_{FM} | 1.0 | | V |
| Peak Reverse Leakage Current @ $V_R = 50\text{V}$ | I_{RM} | 100 | 50 | nA |
| Typical Junction Capacitance ($V_R = 0\text{V DC}$, $f = 1.0\text{MHz}$) | C_j | 2.5 | 2.0 | pF |
| Reverse Recovery Time (Note 2, 3) | t_{rr} | 4.0 | 2.0 | nS |

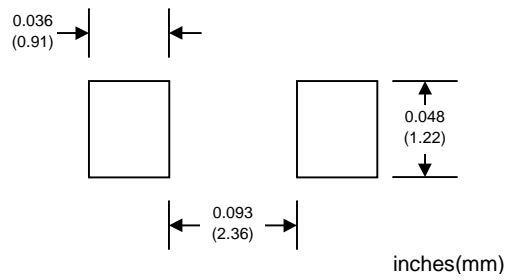
- Note: 1. Valid provided that terminals are kept at ambient temperature.
2. 1N4150W: Measured with $I_F = I_R = 200\text{mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100\Omega$.
3. 1N4151W: Measured with $I_F = I_R = 10\text{mA}$, $I_{RR} = 1.0 \times I_R$, $R_L = 100\Omega$.
4. 1N4150W: Measured with $I_F = 200\text{mA}$. 1N4151W: Measured with $I_F = 10\text{mA}$

MARKING INFORMATION



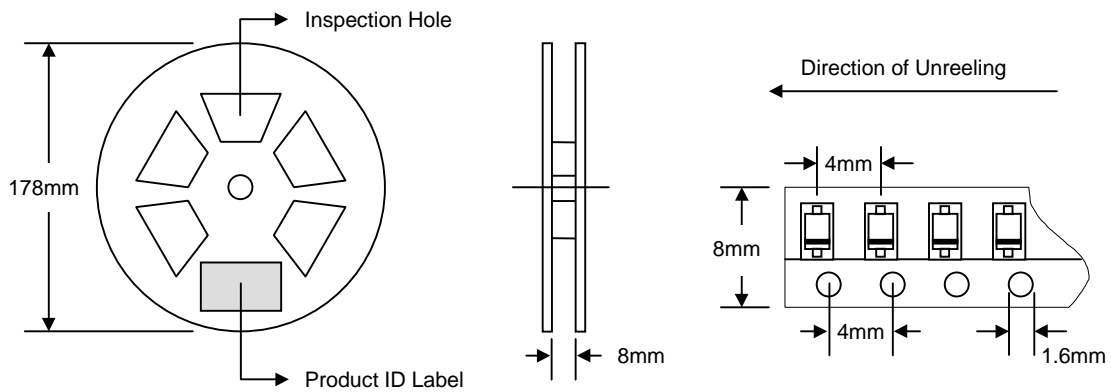
Cathode = Polarity Band
 Ax = Device Code
 x = 4 (1N4150W) or 5 (1N4151W)

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.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417

Email: sales@wontop.com

Internet: <http://www.wontop.com>

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