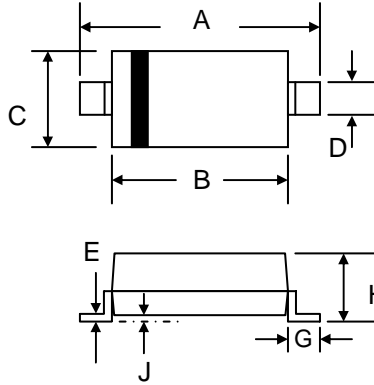


Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount 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: Device Code, See Page 3
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

Maximum Ratings @_{T_A}=25°C unless otherwise specified

| Characteristic | Symbol | SD101AW | SD101BW | SD101CW | Unit |
|--|-----------------------------------|-------------|---------|---------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 60 | 50 | 40 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | |
| DC Blocking Voltage | V _R | | | | |
| Forward Continuous Current (Note 1) | I _F | 15 | | | mA |
| Non-Repetitive Peak Forward Surge Current @ t = 10µs | I _{FSM} | 2.0 | | | A |
| Power Dissipation | P _d | 410 | | | mW |
| Typical Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 300 | | | °C/W |
| Operating and Storage Temperature Range | T _i , T _{STG} | -65 to +125 | | | °C |

Electrical Characteristics @_{T_A}=25°C unless otherwise specified

| Characteristic | Symbol | SD101AW | SD101BW | SD101CW | Unit |
|--|-----------------|---------|---------|---------|------|
| Forward Voltage Drop @ I _F = 1.0mA | V _{FM} | 0.41 | 0.40 | 0.39 | V |
| @ I _F = 15mA | | 1.00 | 0.95 | 0.90 | |
| Peak Reverse Leakage Current @ 80% DC Blocking Voltage | I _{RM} | 200 | | | nA |
| Total Junction Capacitance @ V _R = 0V, f = 1.0MHz | C _T | 2.0 | 2.1 | 2.2 | pF |
| Typical Reverse Recovery Time @ I _F = I _R = 50mA, I _{RR} = 0.1 x I _R , R _L = 100Ω | t _{rr} | 1.0 | | | nS |

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

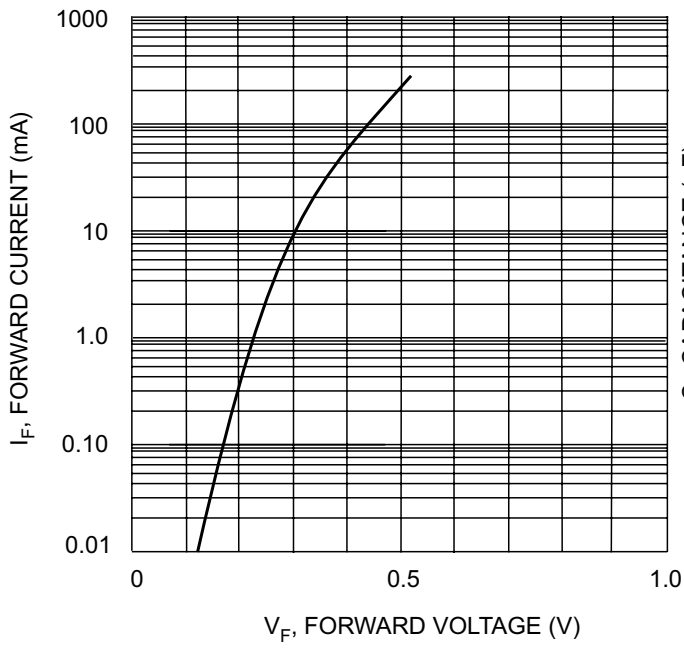


Fig. 1 Typical Forward Characteristics

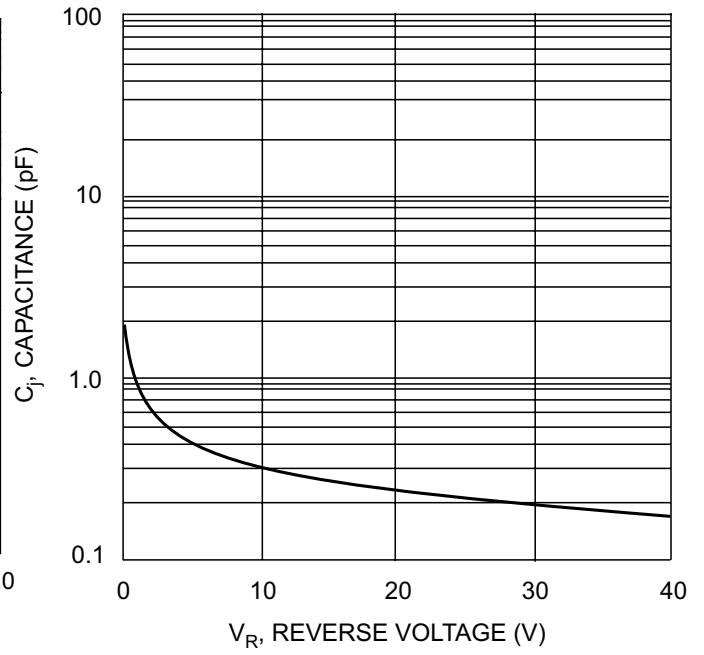


Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

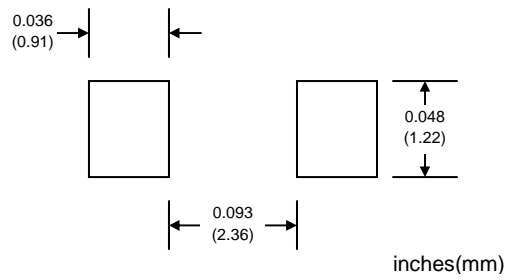
MARKING INFORMATION



xx = Device Code, See Table Below

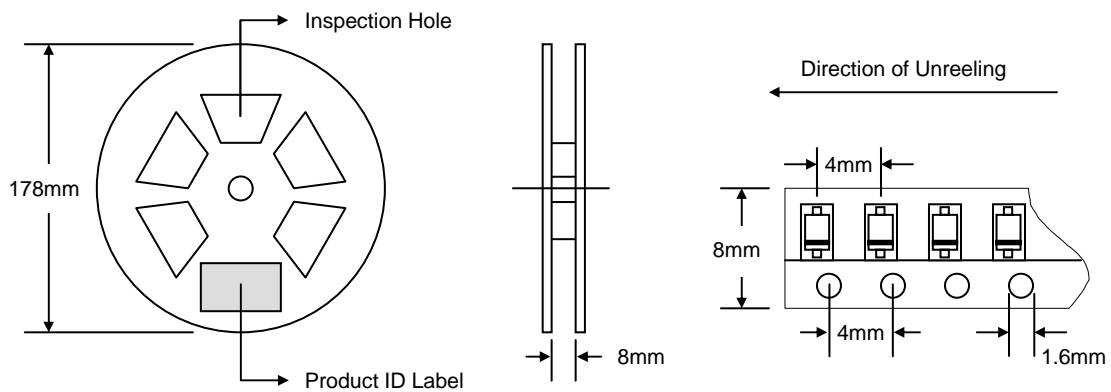
| Mfg Site | SD101AW | SD101BW | SD101CW |
|----------|---------|---------|---------|
| TW Plant | S2 | S3 | S4 |
| CN Plant | S1 | S2 | S3 |

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 |
|-------------|--------------|-------------------|
| SD101AW-T1 | SOD-123 | 3000/Tape & Reel |
| SD101BW-T1 | SOD-123 | 3000/Tape & Reel |
| SD101CW-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, SD101AW-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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