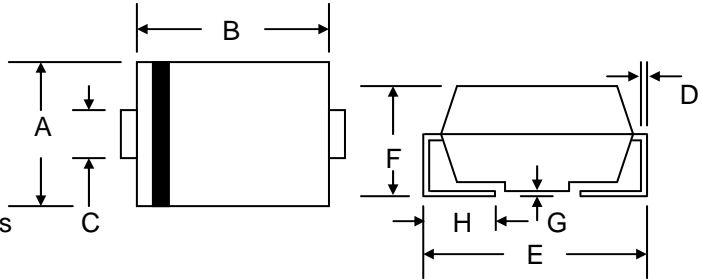


Features

- Low Forward Voltage
- Epitaxial Construction with Oxide Passivation
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 50A Peak
- Low Power Loss
- Fast Switching
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

| SMA/DO-214AC | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 2.29 | 2.92 |
| B | 4.00 | 4.60 |
| C | 1.27 | 1.90 |
| D | 0.152 | 0.305 |
| E | 4.80 | 5.30 |
| F | 2.00 | 2.44 |
| G | 0.051 | 0.203 |
| H | 0.76 | 1.52 |
| All Dimensions in mm | | |

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

| Characteristic | Symbol | SR22 | SR23 | SR24 | SR25 | SR26 | SR28 | SR29 | SR210 | Unit | |
|---|--------------|-------------|------|------|------|-------------|------|------|-------|------|------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| DC Blocking Voltage | V_R | | | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V | |
| Average Rectified Output Current (Note 1) | I_O | 2.0 | | | | | | | | A | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 50 | | | | | | | | A | |
| Forward Voltage @ $I_F = 2.0\text{A}$ | V_{FM} | 0.50 | | | 0.70 | | 0.85 | | | V | |
| Peak Reverse Current @ $T_J = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$ | I_{RM} | | | | | 0.5 | | 10 | | | mA |
| Typical Junction Capacitance (Note 2) | C_J | 150 | | | | | 100 | | | | pF |
| Thermal Resistance, Junction to Ambient (Note 1) | R_{JA} | | | | | | 88 | | | | °C/W |
| Thermal Resistance, Junction to Lead (Note 1) | R_{JL} | | | | | | 25 | | | | |
| Operating Temperature Range | T_J | -55 to +125 | | | | -55 to +150 | | | | °C | |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | °C | |

Note: 1. Mounted on FR-4 PCB with 5.0 x 5.0mm copper pads.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

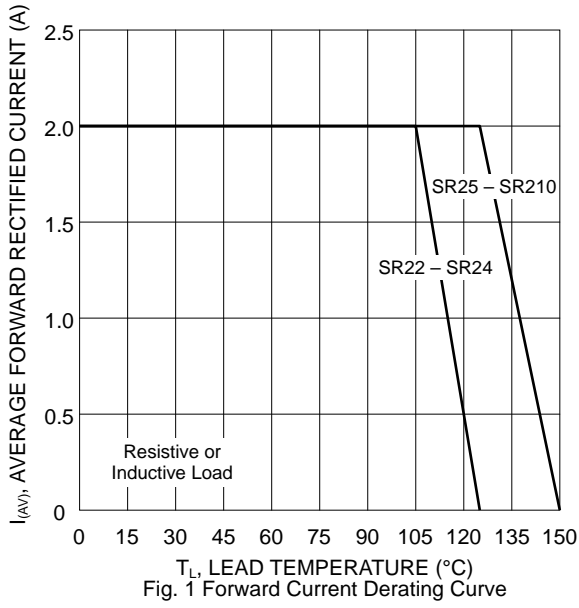


Fig. 1 Forward Current Derating Curve

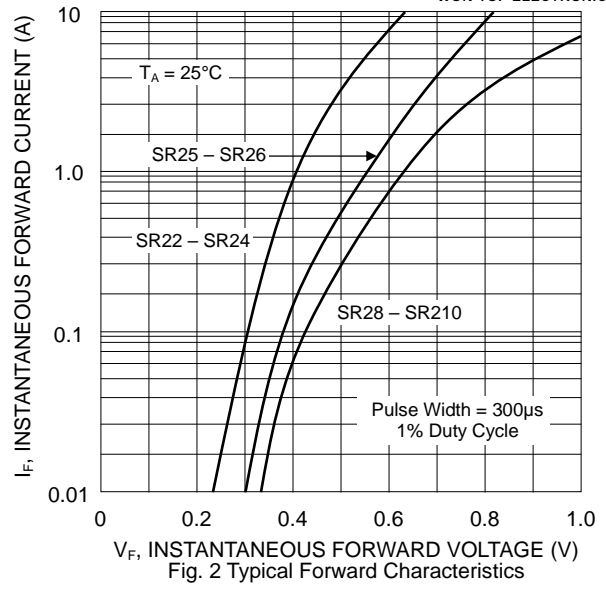


Fig. 2 Typical Forward Characteristics

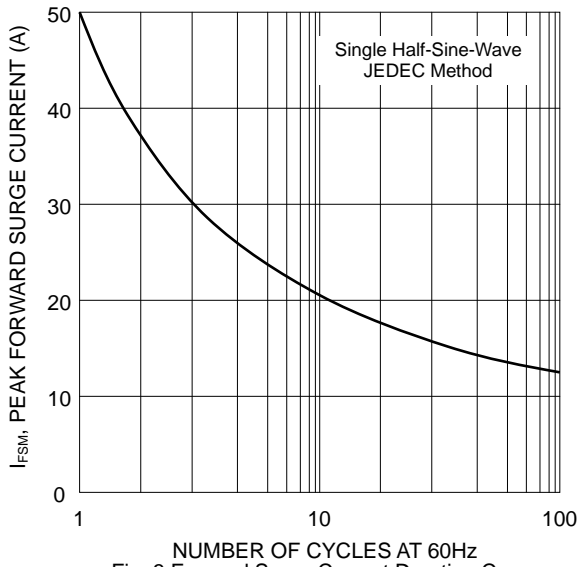


Fig. 3 Forward Surge Current Derating Curve

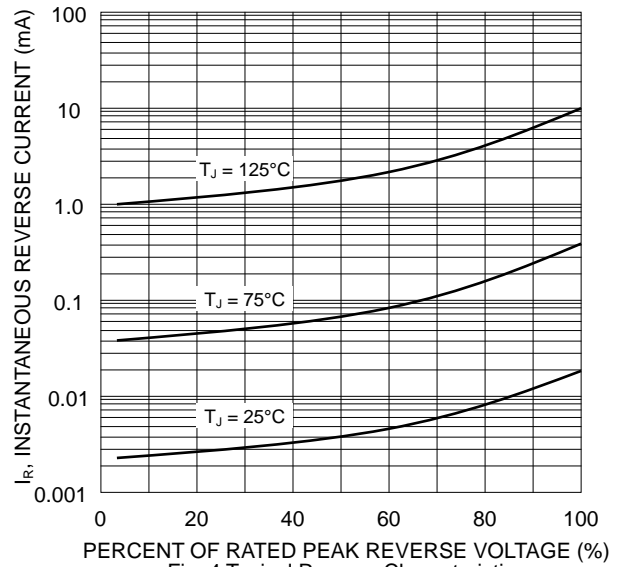


Fig. 4 Typical Reverse Characteristics

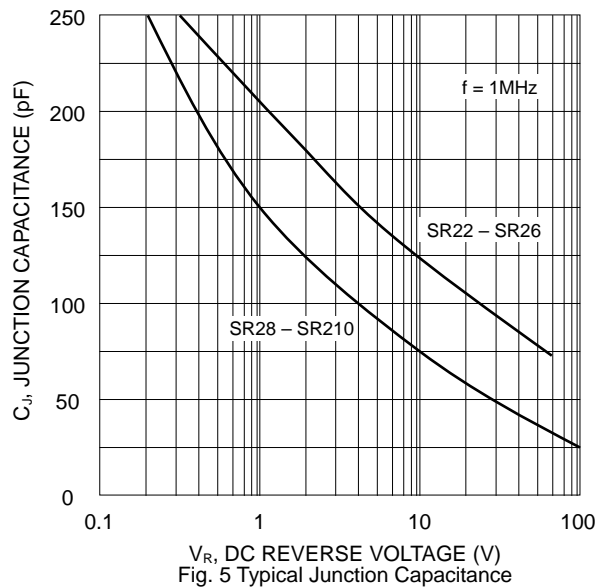
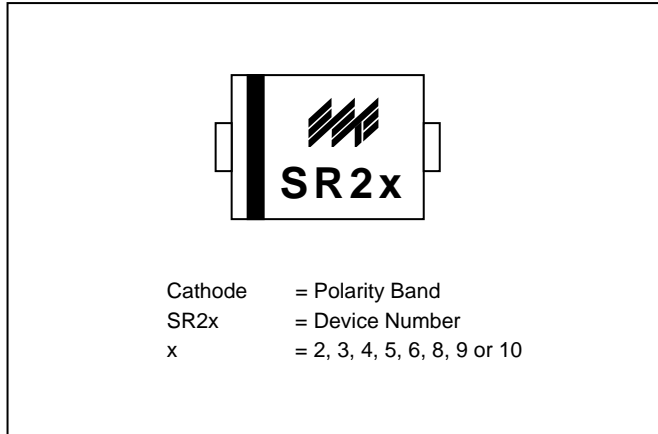
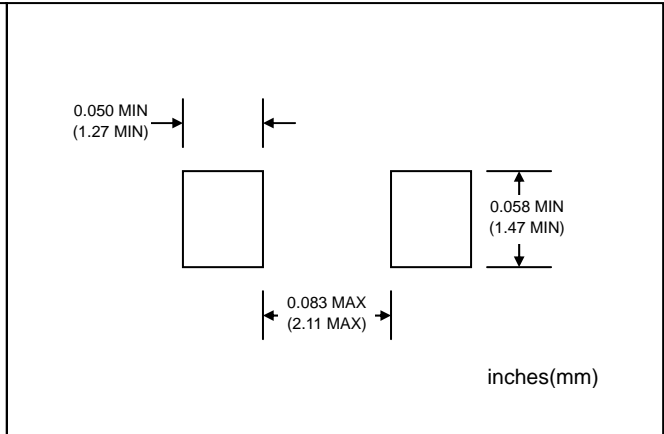


Fig. 5 Typical Junction Capacitance

MARKING INFORMATION

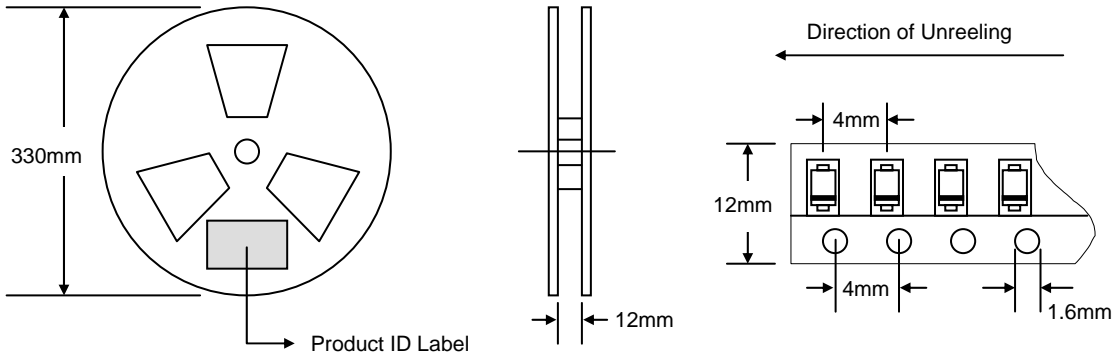


RECOMMENDED FOOTPRINT



PACKAGING INFORMATION

TAPE & REEL



The diagrams show a top view of a 330mm diameter reel with a Product ID Label, a side view of the reel with a 12mm thickness, and a detailed view of the carrier tape. The carrier tape has a width of 12mm and a pitch of 4mm between components. The component width is 4mm and the lead length is 1.6mm. An arrow indicates the "Direction of Unreeling".

| 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) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 330 | 5,000 | 340 x 337 x 45 | 10,000 | 370 x 370 x 420 | 80,000 | 14.0 |

Note: 1. Paper reel, white or gray color.
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| SR22-T3 | SMA | 5000/Tape & Reel |
| SR23-T3 | SMA | 5000/Tape & Reel |
| SR24-T3 | SMA | 5000/Tape & Reel |
| SR25-T3 | SMA | 5000/Tape & Reel |
| SR26-T3 | SMA | 5000/Tape & Reel |
| SR28-T3 | SMA | 5000/Tape & Reel |
| SR29-T3 | SMA | 5000/Tape & Reel |
| SR210-T3 | SMA | 5000/Tape & Reel |

- Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
- To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SR22-T3-LF.

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