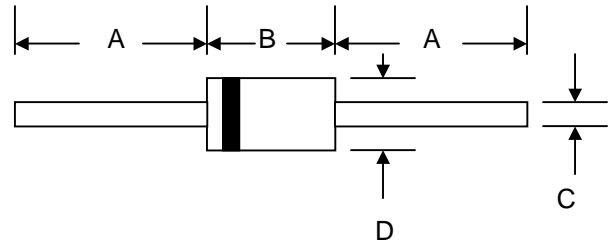


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

| DO-201AD | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 25.4 | — |
| B | 7.20 | 9.50 |
| C | 1.20 | 1.30 |
| D | 4.80 | 5.30 |
| All Dimensions in mm | | |

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

Single Phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

| Characteristic | Symbol | SD1030 | SD1035 | SD1040 | SD1045 | Unit |
|---|-----------------|-------------|--------|--------|--------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 30 | 35 | 40 | 45 | V |
| DC Blocking Voltage | V_R | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 21 | 25 | 28 | 32 | V |
| Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ (Note 1) | I_O | 10 | | | | A |
| Non-Repetitive Peak Forward Surge Current 10ms Single sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 340 | | | | A |
| Forward Voltage @ $I_F = 10\text{A}$ | V_{FM} | 0.55 | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_{RM} | 0.8 70 | | | | mA |
| Typical Junction Capacitance (Note 2) | C_j | 900 | | | | pF |
| Typical Thermal Resistance (Note 1) | $R_{\theta JL}$ | 8.0 | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | | | | $^\circ\text{C}$ |

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

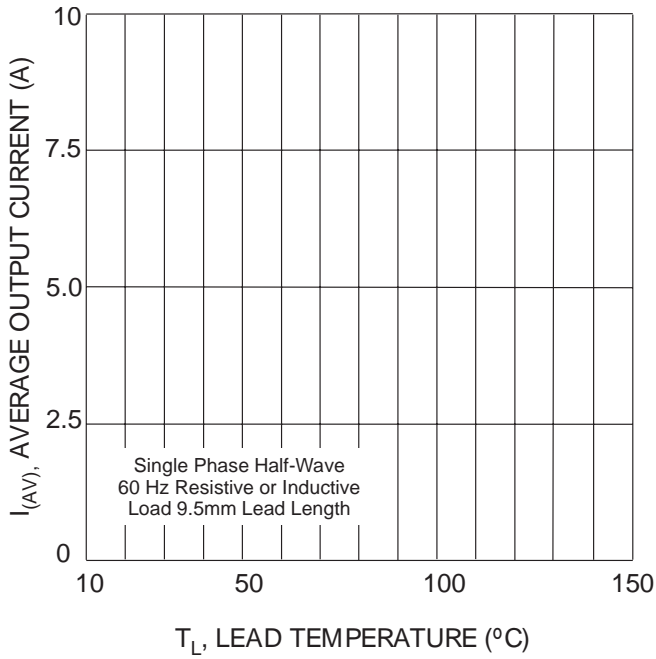


Fig. 1 Forward Current Derating Curve

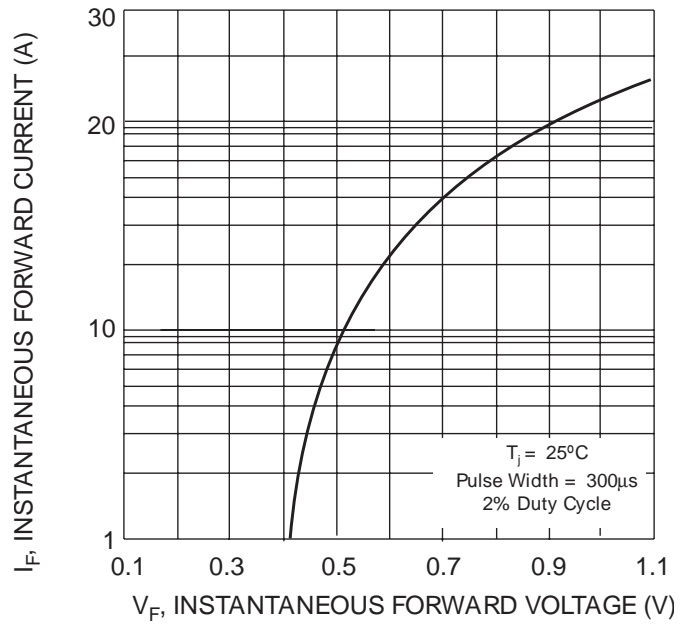


Fig. 2 Typical Forward Voltage Characteristics

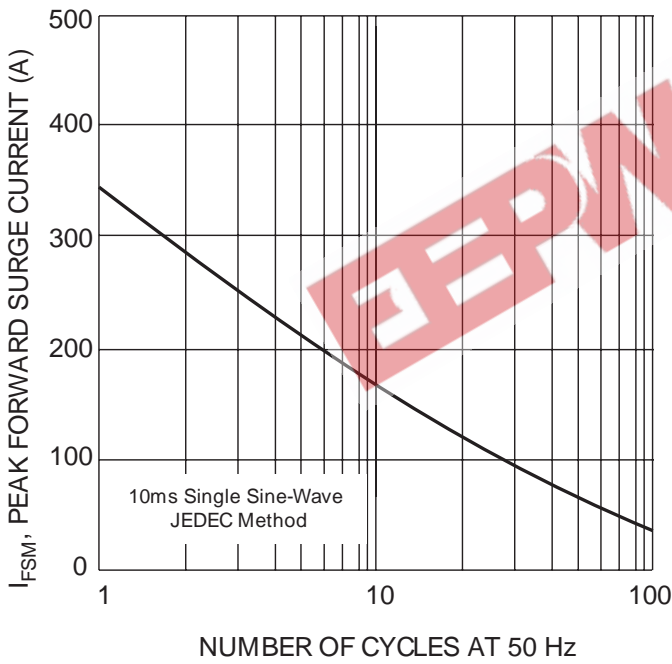


Fig. 3 Peak Forward Surge Current

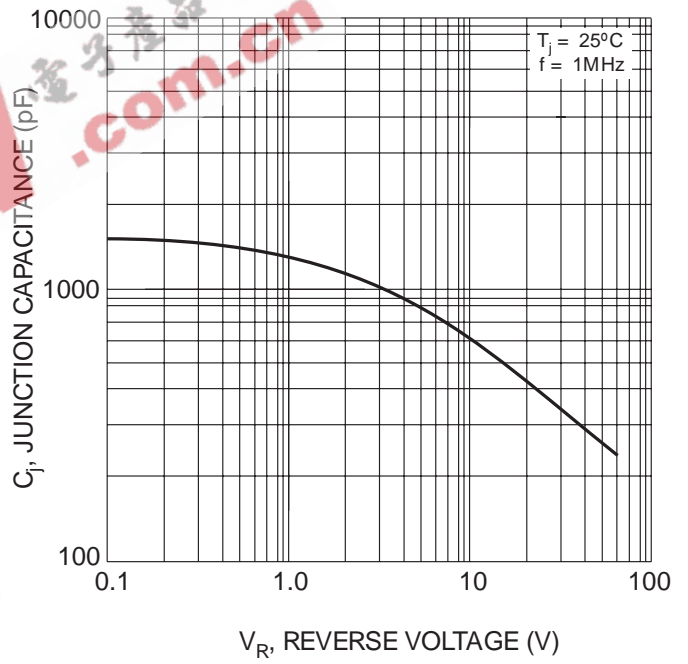
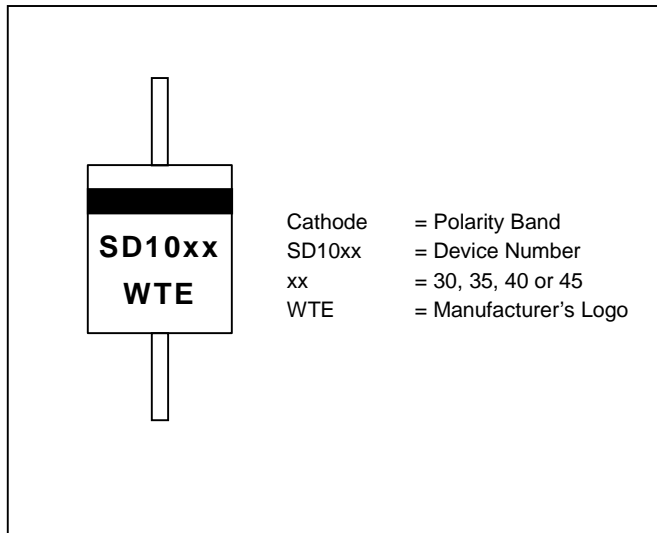
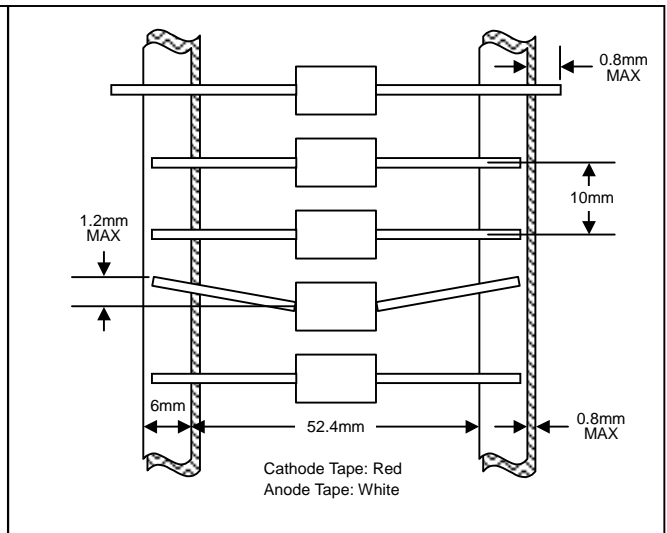


Fig. 4 Typical Junction Capacitance

MARKING INFORMATION



TAPING SPECIFICATIONS



PACKAGING INFORMATION

TAPE & REEL

330mm
 Product ID Label
 80±5mm

TAPE & BOX

150mm
 255mm
 75mm
 Product ID Label
 Inspection Hole (both ends)

BULK

40mm
 200mm
 85mm

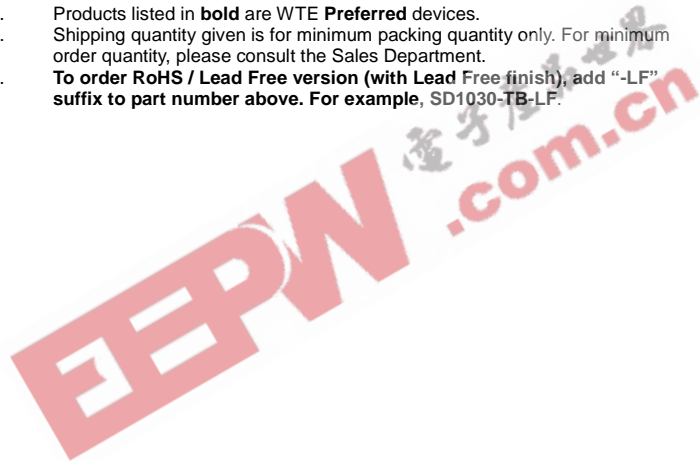
| Packaging | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| TAPE & REEL | 330 | 1,200 | 370 x 370 x 420 | 6,000 | 10.0 |
| TAPE & BOX | 255 x 75 x 150 | 1,200 | 400 x 273 x 415 | 12,000 | 17.0 |
| BULK | 200 x 85 x 40 | 500 | 459 x 214 x 256 | 12,500 | 16.0 |

Note: 1. Paper reel, white or gray color. Core material: plastic or metal.
 2. Components are packed in accordance with EIA standard RS-296-E.

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|------------------|--------------|-------------------|
| SD1030-T3 | DO-201AD | 1200/Tape & Reel |
| SD1030-TB | DO-201AD | 1200/Tape & Box |
| SD1030 | DO-201AD | 500 Units/Box |
| SD1035-T3 | DO-201AD | 1200/Tape & Reel |
| SD1035-TB | DO-201AD | 1200/Tape & Box |
| SD1035 | DO-201AD | 500 Units/Box |
| SD1040-T3 | DO-201AD | 1200/Tape & Reel |
| SD1040-TB | DO-201AD | 1200/Tape & Box |
| SD1040 | DO-201AD | 500 Units/Box |
| SD1045-T3 | DO-201AD | 1200/Tape & Reel |
| SD1045-TB | DO-201AD | 1200/Tape & Box |
| SD1045 | DO-201AD | 500 Units/Box |

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SD1030-TB-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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We power your everyday.