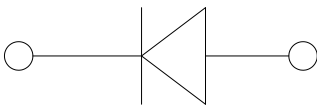
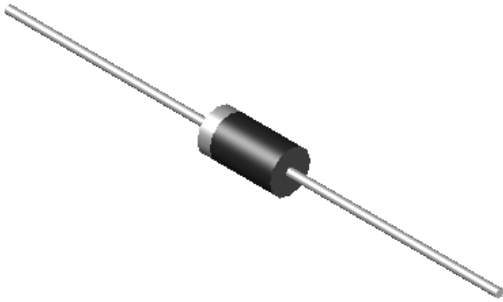


Schottky Barrier Rectifier



Features

- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package:** DO-201AD (DO-27)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SR520 | SR540 | SR560 | SR5100 | SR5150 | SR5200 |
|---|-----------|------------------|-----------|-------|-------|-----------|--------|--------|
| Device marking code | | | SR520 | SR540 | SR560 | SR5100 | SR5150 | SR5200 |
| Repetitive Peak Reverse Voltage | V_{RRM} | V | 20 | 40 | 60 | 100 | 150 | 200 |
| Average Rectified Output Current @60Hz sine wave, Resistance load, T_a (FIG.1) | I_O | A | 5.0 | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$ | I_{FSM} | A | 120 | | | | | |
| Storage Temperature | T_{stg} | $^\circ\text{C}$ | -55 ~+150 | | | | | |
| Junction Temperature | T_j | $^\circ\text{C}$ | -55 ~+125 | | | -55 ~+150 | | |

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | SR520 | SR540 | SR560 | SR5100 | SR5150 | SR5200 |
|---|--------|------|---|-------|-------|-------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode | V_F | V | $I_{FM}=5.0\text{A}$ | 0.55 | | 0.7 | 0.85 | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I_R | mA | $T_a=25^\circ\text{C}$ | 0.2 | | | 0.1 | | |
| | | | $T_a=100^\circ\text{C}$ | 20 | | | 5 | | |
| Typical junction capacitance | C_j | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C | 280 | | 220 | 180 | 100 | |

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SR520 | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | SR5150 | SR5200 |
|--------------------|------------------|--------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Thermal Resistance | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 20 | | | | | | | | |

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

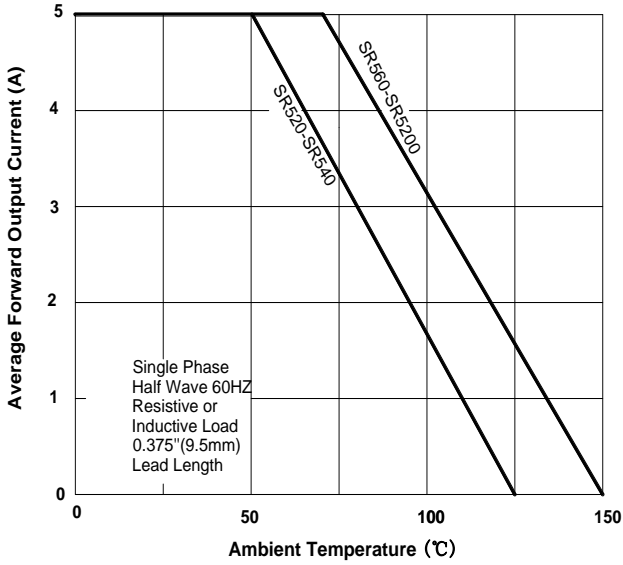


FIG.2: Forward Surge Current Capability

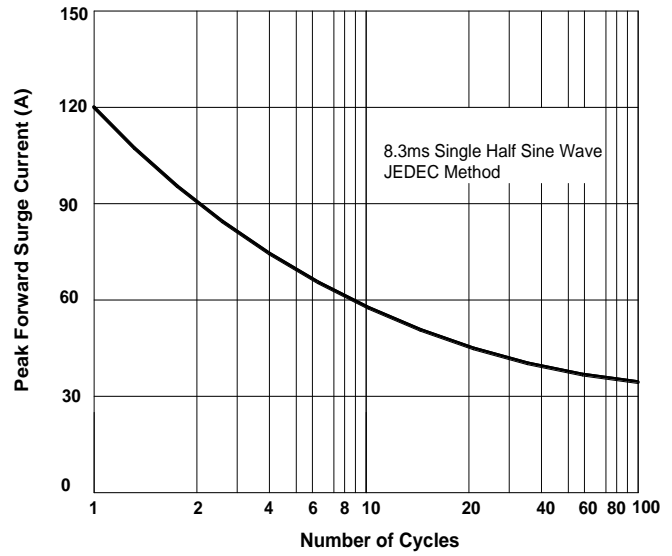


FIG.3: Forward Voltage

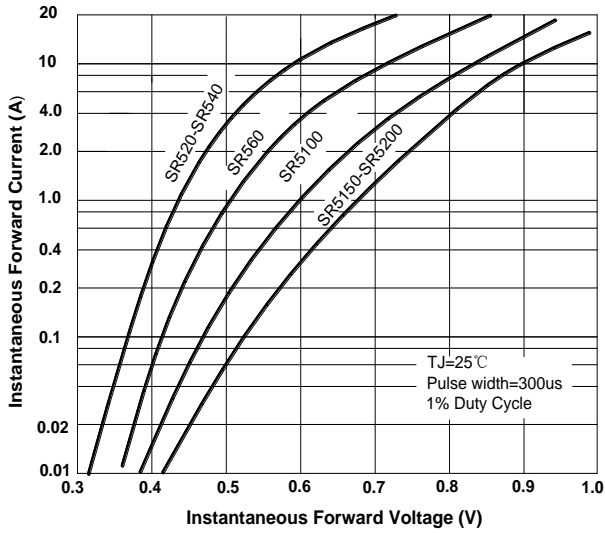
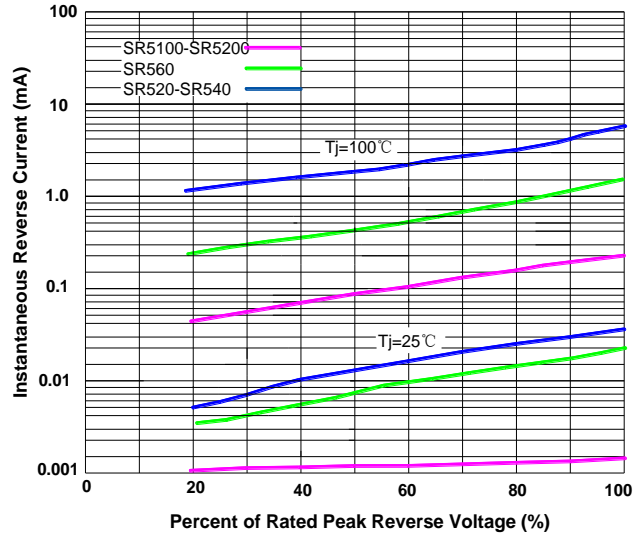
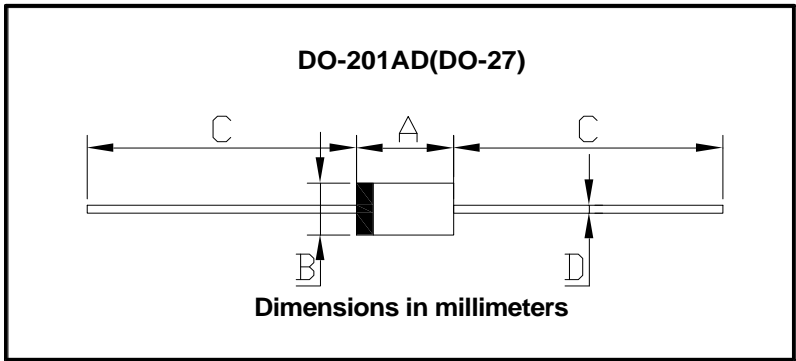


FIG.4: Typical Reverse Characteristics



■ Outline Dimensions



| DO-201AD(DO-27) | | |
|------------------------|------|------|
| Dim | Min | Max |
| A | 8.50 | 9.50 |
| B | 5.00 | 5.60 |
| C | 25.4 | / |
| D | 1.20 | 1.30 |