

SR220 THRU SR2200

Schottky Barrier Rectifiers

Reverse Voltage - 20 to 200 V

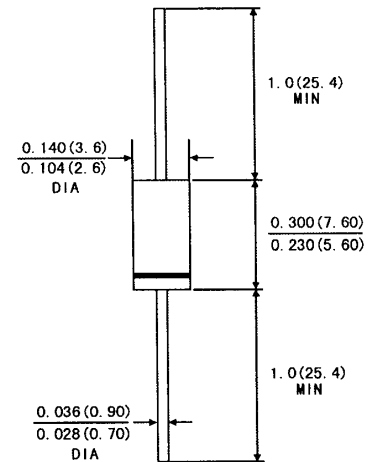
Forward Current - 2 A

Features

- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Metal silicon junction, majority carrier conduction

Mechanical Data

- **Case:** Molded plastic, DO-15
- **Terminals:** Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any



Dimensions in inches and (millimeters)

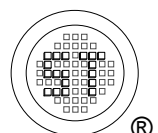
Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| Parameter | Symbols | SR220 | SR230 | SR240 | SR250 | SR260 | SR280 | SR2100 | SR2150 | SR2200 | Units |
|---|--------------------|---------------|-------|-------|-------|---------------|-------|--------|--------|--------|-------|
| | Marking | SR220 | SR230 | SR240 | SR250 | SR260 | SR280 | SR2100 | SR2150 | SR2200 | - |
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 57 | 71 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum Forward Voltage at 2 A | V _F | 0.55 | | | 0.7 | | 0.85 | | 0.95 | | V |
| Maximum Average Forward Rectified Current 0.375"(9.5 mm) Lead Length | I _{F(AV)} | 2 | | | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single half sine-wave Superimposed on Rated Load (JEDEC Method) | I _{FSM} | 60 | | | | | | | | | A |
| Maximum Reverse Current at Rated T _a = 25 °C DC Blocking Voltage T _a = 100 °C | I _R | 0.5 | | | | | | 0.2 | | mA | |
| | | 10 | | | | 5 | | | | | |
| Typical Junction Capacitance ¹⁾ | C _J | 220 | | | 80 | | | | | | pF |
| Typical Thermal Resistance ²⁾ | R _{θJA} | 50 | | | | | | | | | °C/W |
| Operating JunctionTemperature Range | T _j | - 55 to + 125 | | | | - 55 to + 150 | | | | | °C |
| Storage Temperature Range | T _{stg} | - 55 to + 150 | | | | | | | | | °C |

¹⁾ Measured at 1MHz and applied reverse voltage of 4 V D.C.

²⁾ Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted.



Ratings and Electrical Characteristics Curves

Fig. 1- Forward Current Derating Curve

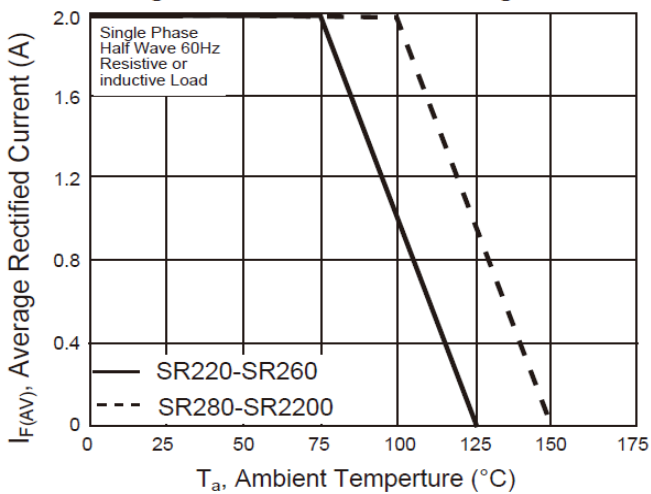


Fig. 2-Maximum Non-Repetitive Peak Forward Surge Current

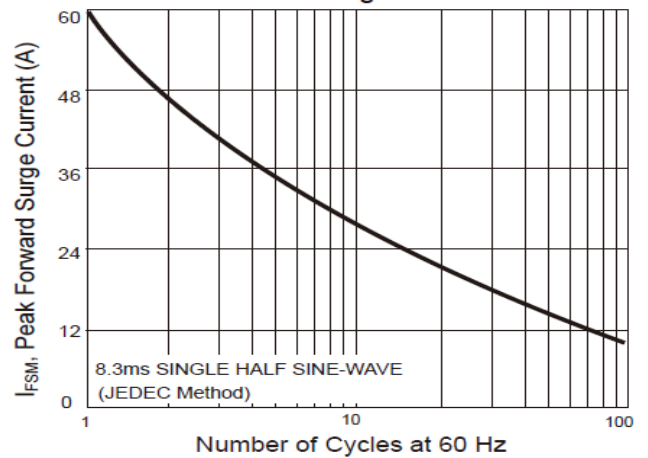


Fig. 3-Typical Instantaneous Forward Characteristics

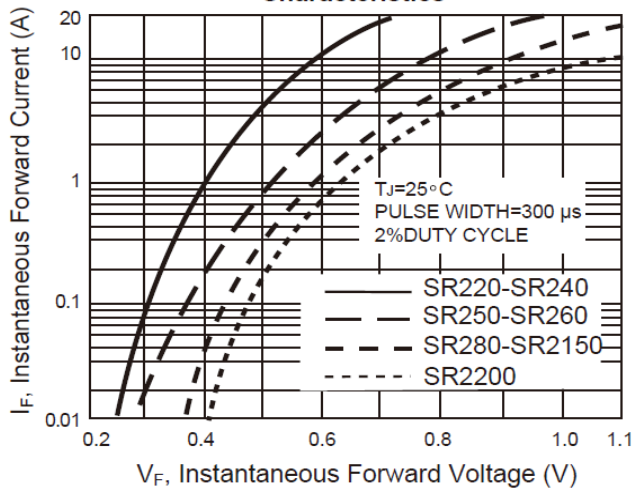


Fig. 4-Typical Reverse Characteristics

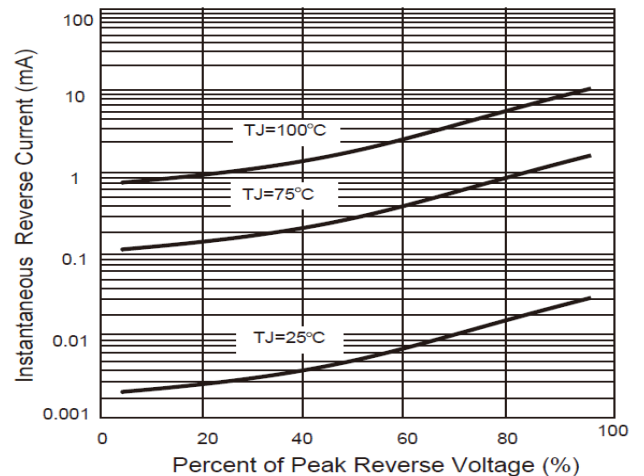


Fig. 5-Typical Junction Capacitance

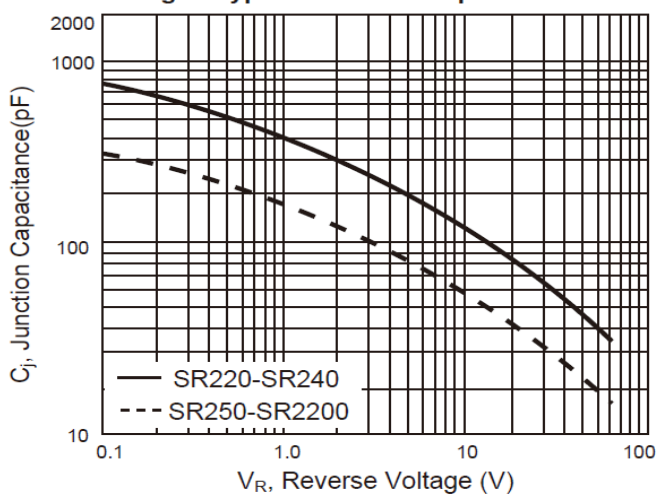


Fig. 6-Typical Transient Thermal Impedance

