

# SR220 THRU SR2200

## SCHOTTKY BARRIER RECTIFIER



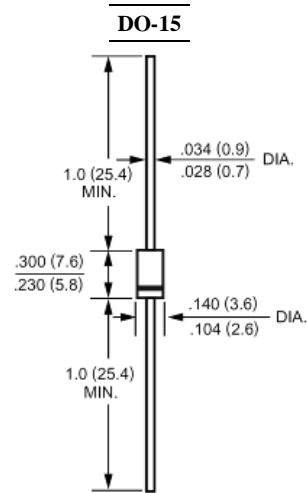
**REVERSE VOLTAGE:** 20 to 200 VOLTS  
**FORWARD CURRENT:** 2.0 AMPERE

### FEATURES

- High current capability
- High surge current capability
- Low forward voltage drop
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and porlarlity protection applications

### MECHANICAL DATA

Case: Molded plastic, DO-15  
 Epoxy: UL 94V-O rate flame retardant  
 Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed  
 Polarity: Color band denotes cathode end  
 Mounting position: Any  
 Weight: 0.015ounce, 0.4gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

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

|   | Symbols         | SR220       | SR230 | SR240 | SR250 | SR260       | SR280 | SR2100 | SR2150 | SR2200 | Units |
|---|-----------------|-------------|-------|-------|-------|-------------|-------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 20          | 30    | 40    | 50    | 60          | 80    | 100    | 150    | 200    | Volts |
| Maximum RMS Voltage   | $V_{RMS}$       | 14          | 21    | 28    | 35    | 42          | 56    | 70     | 105    | 140    | Volts |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 20          | 30    | 40    | 50    | 60          | 80    | 100    | 150    | 200    | Volts |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) Lead Length                                     | $I_{(AV)}$      | 2.0         |       |       |       |             |       |        |        |        | Amp   |
| Peak Forward Surge Current,<br>8.3ms single half-sine-wave<br>superimposed on rated load (JEDEC method)   | $I_{FSM}$       | 50          |       |       |       |             |       |        |        |        | Amp   |
| Maximum Forward Voltage at 2.0A DC and 25°C   | $V_F$           | 0.55        |       |       | 0.70  |             | 0.85  |        | 0.95   |        | Volts |
| Maximum Reverse Current at $T_A=25^\circ\text{C}$<br>at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$ | $I_R$           | 0.5         |       |       |       |             |       |        |        |        | mAmp  |
| Typical Junction Capacitance (Note 1)   | $C_J$           | 180         |       |       |       |             |       |        |        |        | pF    |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ | 45          |       |       |       |             |       |        |        |        | °C/W  |
| Operating Junction Temperature Range  | $T_J$           | -55 to +125 |       |       |       | -55 to +150 |       |        |        |        | °C    |
| Storage Temperature Range   | $T_{stg}$       | -55 to +150 |       |       |       |             |       |        |        |        | °C    |

### NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted

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### RATINGS AND CHARACTERISTIC CURVES

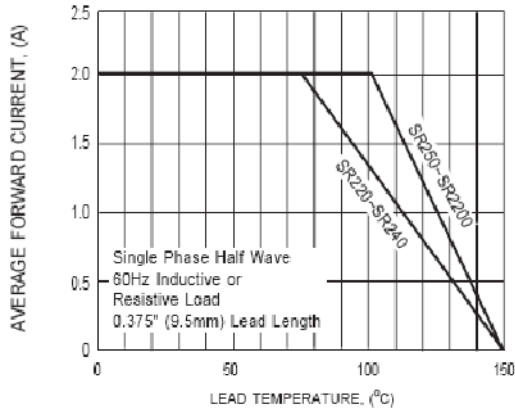


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

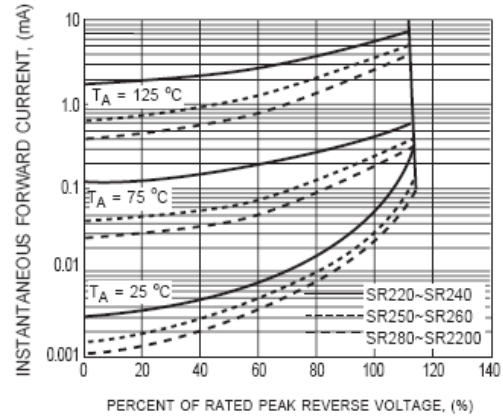


FIG.2 TYPICAL REVERSE CHARACTERISTICS

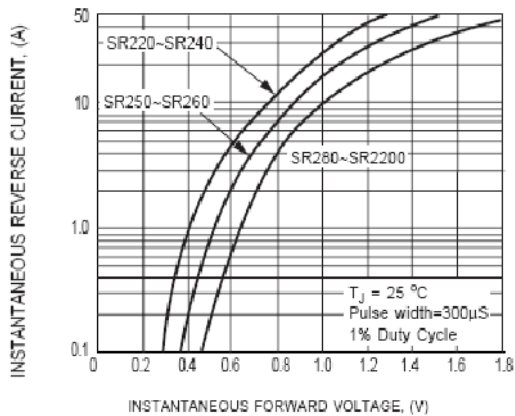


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

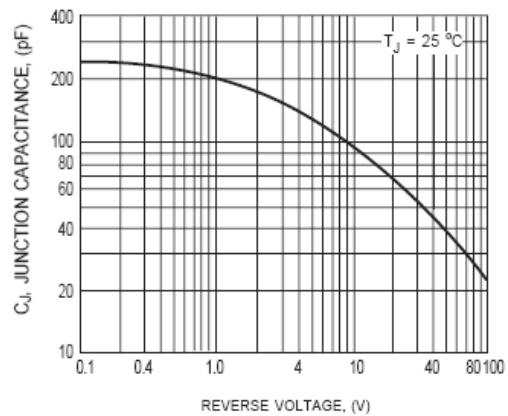


FIG.4 TYPICAL JUNCTION CAPACITANCE

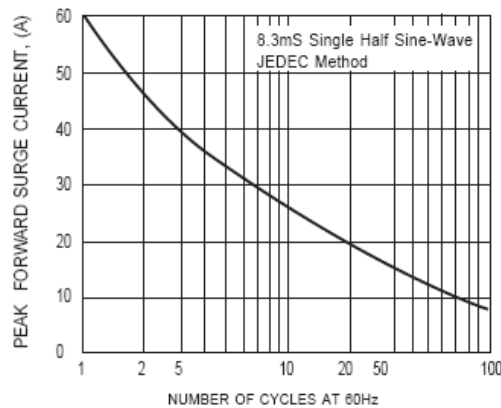


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT