



# SR220 THRU SR2200

## SCHOTTKY BARRIER RECTIFIERS

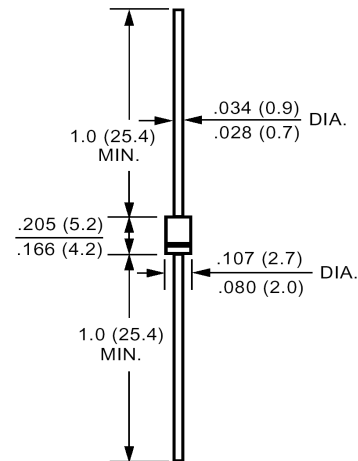
### FEATURES

- 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 porlarity protection applications

### MECHANICAL DATA

Case: Molded plastic, DO-41  
 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: 0.012ounce, 0.33gram

### DO-41



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       | SR240 | SR250 | SR260       | SR280 | SR2100 | SR2500 | SR2200 | Units |  |
|---------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|-------|-------------|-------|--------|--------|--------|-------|--|
| Maximum Recurrent Peak Reverse Voltage                                                                  | $V_{RRM}$       | 20          | 40    | 50    | 60          | 80    | 100    | 150    | 200    | Volts |  |
| Maximum RMS Voltage                                                                                     | $V_{RMS}$       | 14          | 28    | 35    | 42          | 56    | 70     | 105    | 140    | Volts |  |
| Maximum DC Blocking Voltage                                                                             | $V_{DC}$        | 20          | 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 $T_A=25$ °C<br>at Rated DC Blocking Voltage $T_A=100$ °C                     | $I_R$           | 0.5         |       |       |             |       |        |        |        | mAmp  |  |
| Typical Junction Capacitance (Note 1)                                                                   | $C_J$           | 180         |       |       |             |       |        |        |        | pF    |  |
| Typical Thermal Resistance (Note 2)                                                                     | $R_{\theta JA}$ | 60          |       |       |             |       |        |        |        | /W    |  |
| Operating Junction Temperature Range                                                                    | $T_J$           | -55 to +125 |       |       | -55 to +150 |       |        |        |        |       |  |
| Storage Temperature Range                                                                               | $T_{stg}$       | -55 to +150 |       |       |             |       |        |        |        |       |  |

#### 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

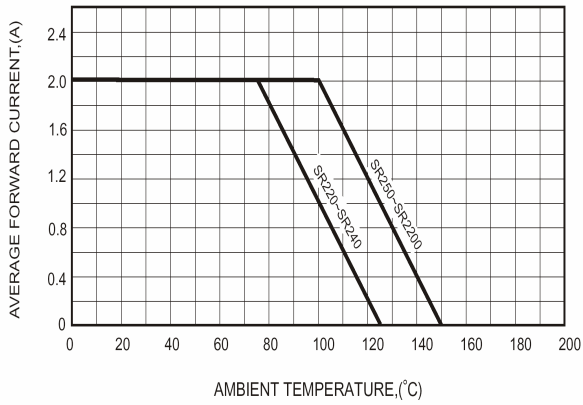


FIG.2-TYPICAL FORWARD CHARACTERISTICS

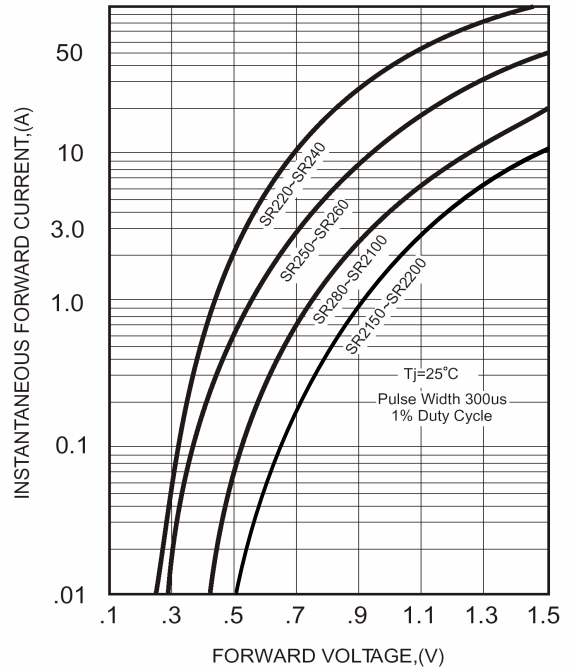


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

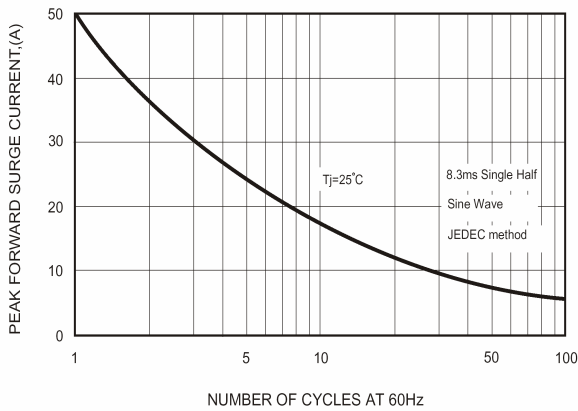


FIG.4-TYPICAL JUNCTION CAPACITANCE

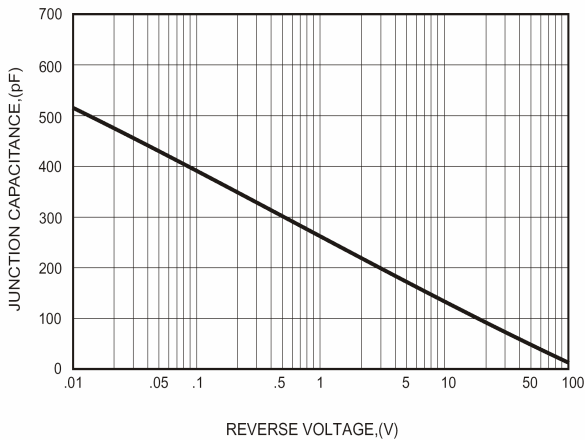


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

