

# SR820 THRU SR8200

## 8.0 AMP SCHOTTKY BARRIER RECTIFIERS



### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

### MECHANICAL DATA

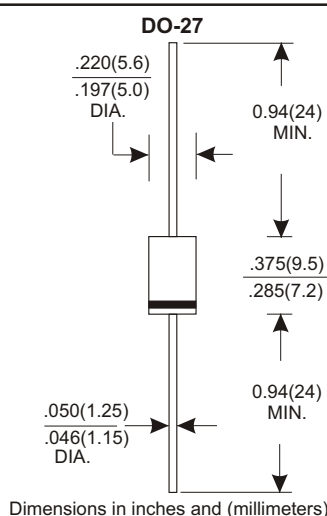
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 2.24 grams

### VOLTAGE RANGE

20 to 200 Volts

### CURRENT

8.0 Amperes



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                        | SR820      | SR840 | SR860 | SR880 | SR8100 | SR8150     | SR8200 | UNITS |
|----------------------------------------------------------------------------------------------------|------------|-------|-------|-------|--------|------------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                             | 20         | 40    | 60    | 80    | 100    | 150        | 200    | V     |
| Maximum RMS Voltage                                                                                | 14         | 28    | 42    | 56    | 70     | 105        | 140    | V     |
| Maximum DC Blocking Voltage                                                                        | 20         | 40    | 60    | 80    | 100    | 150        | 200    | V     |
| Maximum Average Forward Rectified Current                                                          |            |       |       |       |        |            |        |       |
| See Fig. 1                                                                                         | 8.0        |       |       |       |        |            |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 170        |       |       |       |        |            |        | A     |
| Maximum Instantaneous Forward Voltage at 8.0A                                                      | 0.55       |       | 0.7   | 0.85  |        | 0.92       |        | V     |
| Maximum DC Reverse Current Ta=25°C                                                                 | 0.1        |       |       | 0.02  |        |            |        | mA    |
| at Rated DC Blocking Voltage Ta=100°C                                                              | 5          |       |       | 2     |        |            |        | mA    |
| Typical Junction Capacitance (Note1)                                                               | 450        |       |       |       |        |            |        | pF    |
| Typical Thermal Resistance R JC (Note 2)                                                           | 10.0       |       |       |       |        |            |        | °C/W  |
| Operating Temperature Range Tj                                                                     | -65 — +150 |       |       |       |        | -65 — +175 |        | °C    |
| Storage Temperature Range Tstg                                                                     | -65 — +150 |       |       |       |        |            |        | °C    |

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

## RATING AND CHARACTERISTIC CURVES (SR820 THRU SR8200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

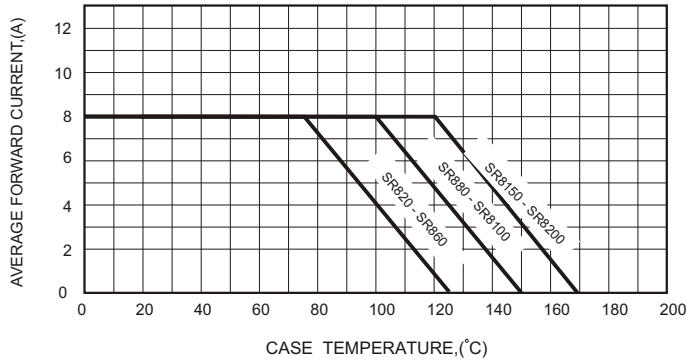


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

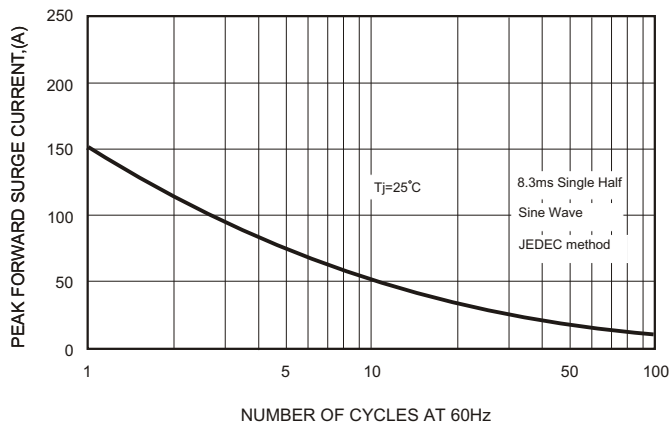


FIG.4-TYPICAL JUNCTION CAPACITANCE

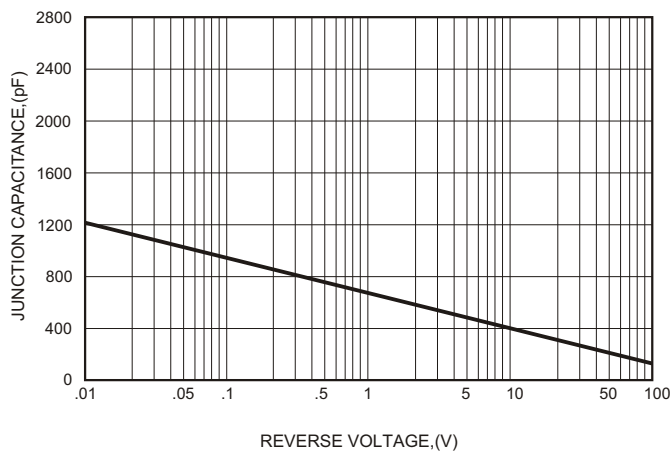


FIG.2-TYPICAL FORWARD

CHARACTERISTICS

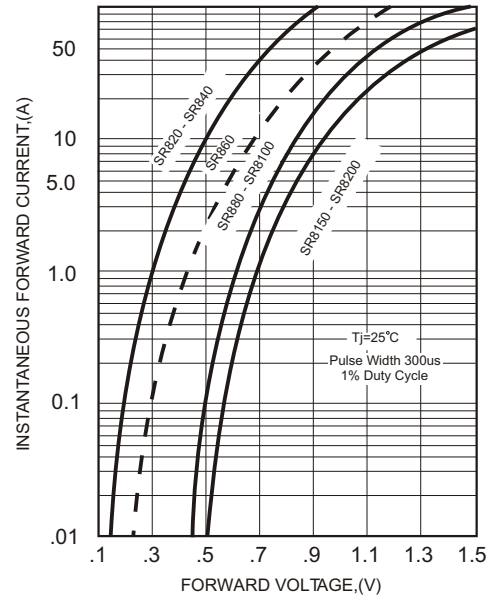


FIG.5 - TYPICAL REVERSE

CHARACTERISTICS

