

SR820 THRU SR860

FMS

8.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

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

MECHANICAL DATA

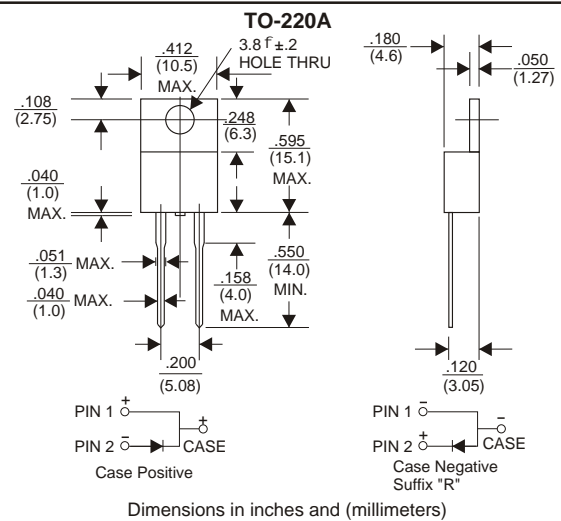
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 2.24 grams

VOLTAGE RANGE

20 to 60 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 | SR830 | SR835 | SR840 | SR845 | SR850 | SR860 | UNITS |
|--|------------|-------|-------|-------|-------|------------|-------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum RMS Voltage | 14 | 21 | 24 | 28 | 31 | 35 | 42 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 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) | 150 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 8.0A | 0.65 | | | | | 0.75 | | V |
| Maximum DC Reverse Current $T_a=25^\circ\text{C}$ | 5.0 | | | | | | | mA |
| at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$ | 50 | | | | | | | mA |
| Typical Junction Capacitance (Note1) | 700 | | | | | 460 | | pF |
| Typical Thermal Resistance $R_{\theta JC}$ (Note 2) | 3.0 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Temperature Range T_J | -65 — +125 | | | | | -65 — +150 | | $^\circ\text{C}$ |
| Storage Temperature Range T_{STG} | -65 — +150 | | | | | | | $^\circ\text{C}$ |

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 SR860)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

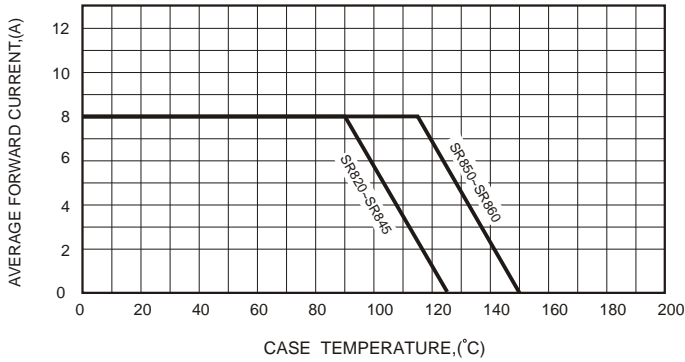


FIG.2-TYPICAL FORWARD CHARACTERISTICS

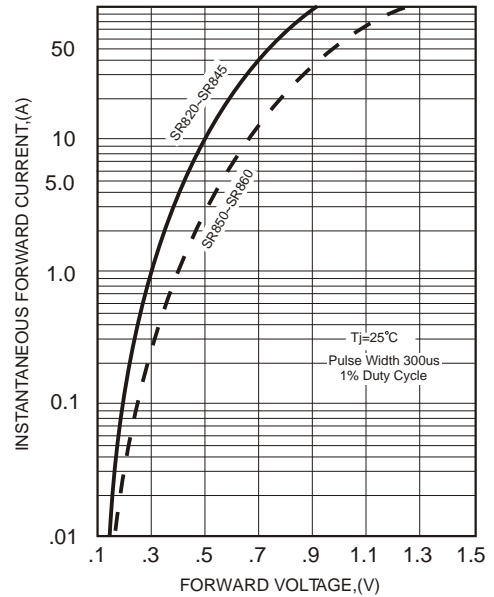


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

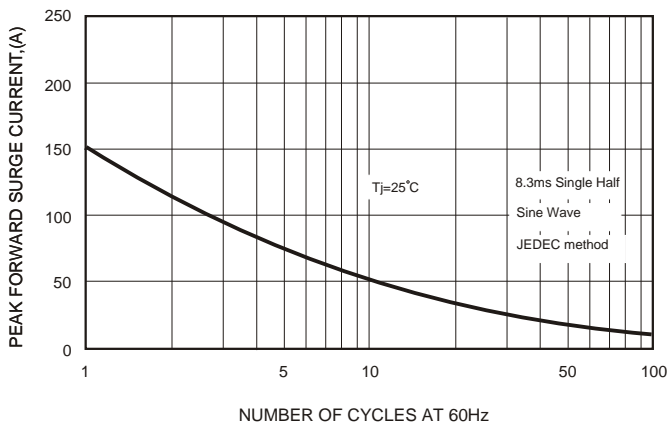


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

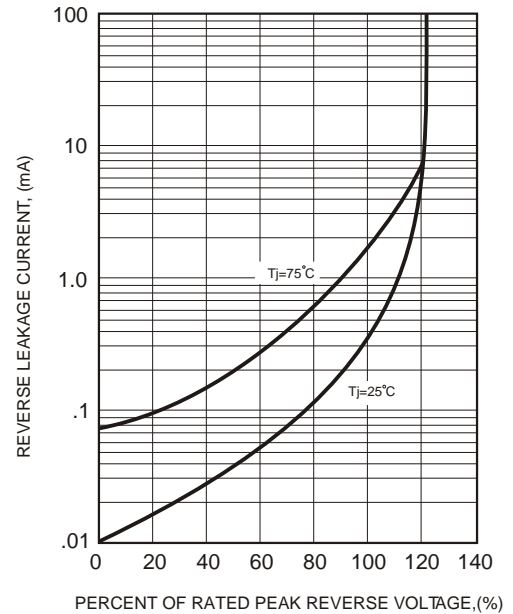


FIG.4-TYPICAL JUNCTION CAPACITANCE

