



# Schottky Barrier Rectifiers

## SR5A20-G Thru SR5A100-G

**Reverse Voltage: 20 ~ 100 Volts**

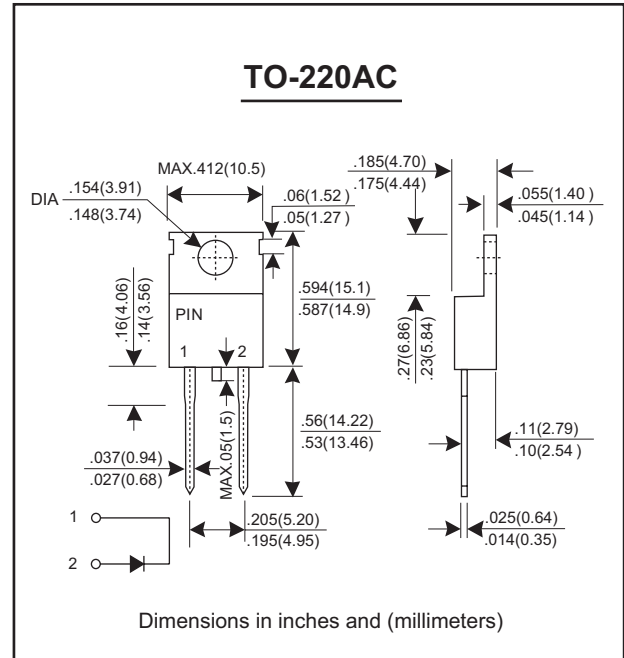
**Current: 5.0 Amp**

### Features:

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

### Mechanical Data:

- Case: TO-220AC molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Approx. Weight: 2.03 grams



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Parameter   | Symbol     | SR5A20-G    | SR5A40-G | SR5A60-G | SR5A80-G | SR5A100-G | Unit |
|---|------------|-------------|----------|----------|----------|-----------|------|
| Max. Recurrent Peak Reverse Voltage   | $V_{RRM}$  | 20          | 40       | 60       | 80       | 100       | V    |
| Max. RMS Voltage  | $V_{RMS}$  | 14          | 28       | 42       | 56       | 70        | V    |
| Max. DC Blocking Voltage  | $V_{DC}$   | 20          | 40       | 60       | 80       | 100       | V    |
| Peak Surge Forward Current<br>8.3ms single half sine-wave superimposed<br>on rate load (JEDEC method) | $I_{FSM}$  | 100         |          |          |          |           | A    |
| Max. Average Forward Rectified Current ( $T_C=95^\circ\text{C}$ )                                     | $I_{(AV)}$ | 5.0         |          |          |          |           | A    |
| Max. Instantaneous Forward Voltage at 5.0A  | $V_F$      | 0.55        | 0.65     | 0.75     | 0.85     |           | V    |
| Max. DC Reverse Current @ $T_j = 25^\circ\text{C}$  | $I_R$      | 1.0         |          |          |          |           | mA   |
| At Rated DC Blocking Voltage @ $T_j = 100^\circ\text{C}$  |            | 30          |          |          |          |           |      |
| Typical junction Capacitance (Note1)  | $C_J$      | 350         |          |          |          |           | pF   |
| Max. Operating Junction Temperature   | $T_j$      | -55 to +125 |          |          |          |           | °C   |
| Storage Temperature   | $T_{STG}$  | -55 to +150 |          |          |          |           | °C   |

Note1: (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.



## RATINGS AND CHARACTERISTIC CURVES SR5A20-G THRU SR5A100-G

FIG.1 - FORWARD CURRENT DERATING CURVE

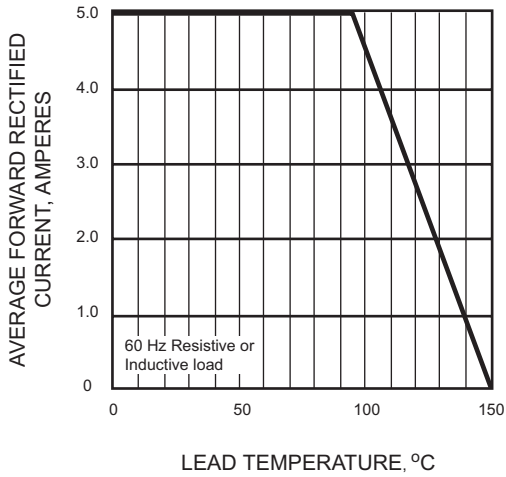


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

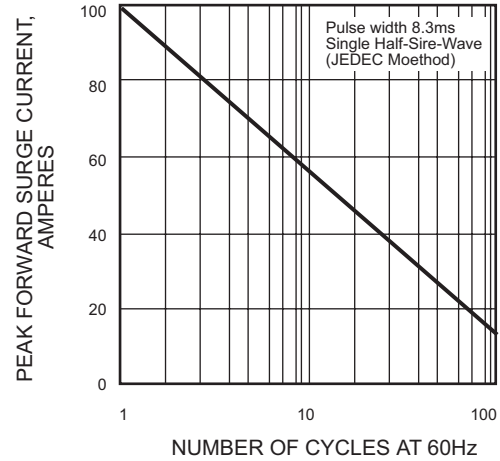


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

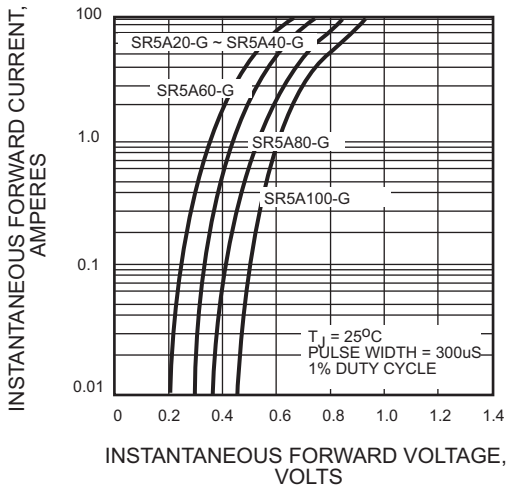


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

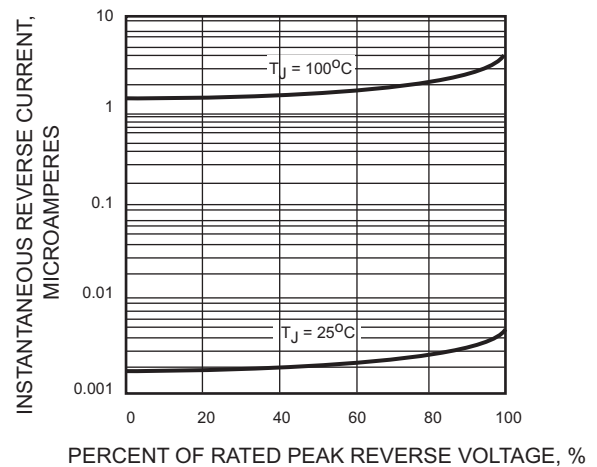


FIG.5 - TYPICAL JUNCTION CAPACITANCE

