

# SR3020CT THRU SR30100CT



## 30.0 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

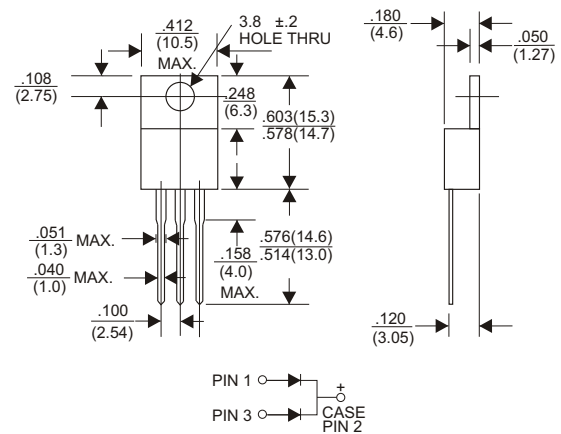
### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

30.0 Amperes

#### TO-220



Dimensions in inches and (millimeters)

## 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  | SR 3020CT | SR 3030CT | SR 3040CT | SR 3050CT | SR 3060CT | SR 3080CT | SR 30100CT | UNITS      |      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------|
| Maximum Recurrent Peak Reverse Voltage   | 20        | 30        | 40        | 50        | 60        | 80        | 100        | V          |      |
| Maximum RMS Voltage  | 14        | 21        | 28        | 35        | 42        | 56        | 70         | V          |      |
| Maximum DC Blocking Voltage  | 20        | 30        | 40        | 50        | 60        | 80        | 100        | V          |      |
| Maximum Average Forward Rectified Current  |           |           |           |           |           |           |            |            |      |
| at T <sub>c</sub> =95°C  |           |           |           |           |           |           |            | 30.0       | A    |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) |           |           |           |           |           |           |            | 300        | A    |
| Maximum Instantaneous Forward Voltage per Leg at 15A   | 0.55      |           | 0.70      |           | 0.85      |           |            | V          |      |
| Maximum DC Reverse Current Ta=25°C   |           |           |           |           |           |           |            | 0.5        | mA   |
| at Rated DC Blocking Voltage Ta=100°C  |           |           |           |           |           |           |            | 50         | mA   |
| Typical Junction Capacitance (Note1)   |           |           |           |           |           |           |            | 700        | pF   |
| Typical Thermal Resistance R <sub>θJC</sub> (Note 2)   |           |           |           |           |           |           |            | 2.0        | °C/W |
| Operating Temperature Range T <sub>j</sub>   |           |           |           |           |           |           |            | -65 — +150 | °C   |
| Storage Temperature Range T <sub>stg</sub>   |           |           |           |           |           |           |            | -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 (SR3020CT THRU SR30100CT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

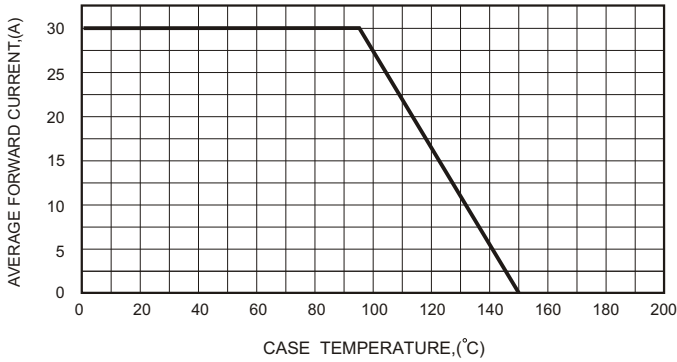


FIG.2-TYPICAL FORWARD

CHARACTERISTICS

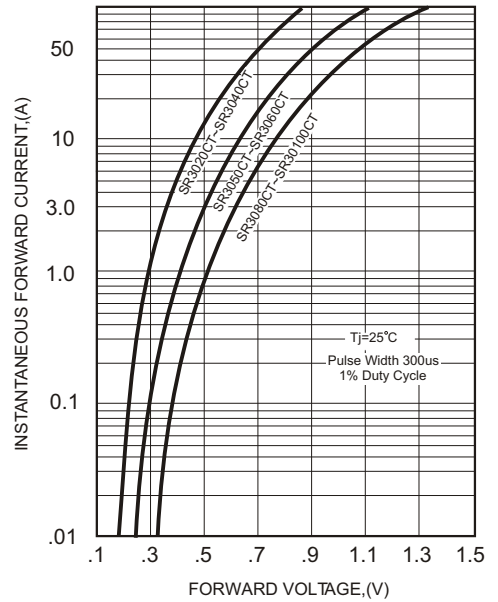


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

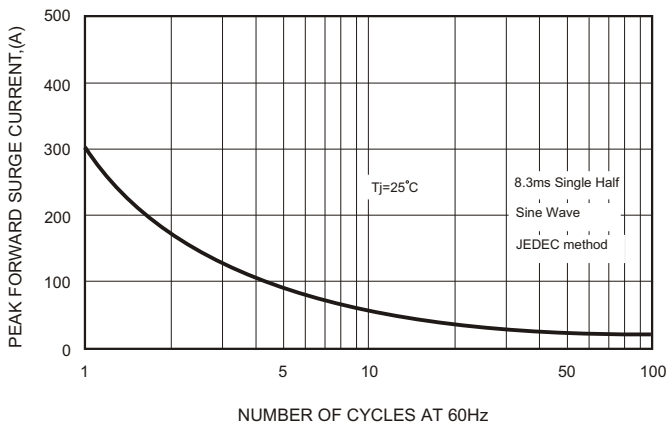


FIG.5 - TYPICAL REVERSE

CHARACTERISTICS

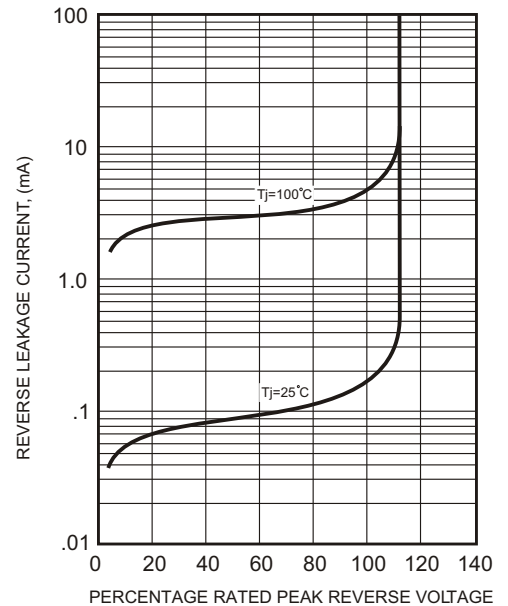


FIG.4-TYPICAL JUNCTION CAPACITANCE

