

## SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 20 to 100 Volts  
FORWARD CURRENT - 5.0 Amperes

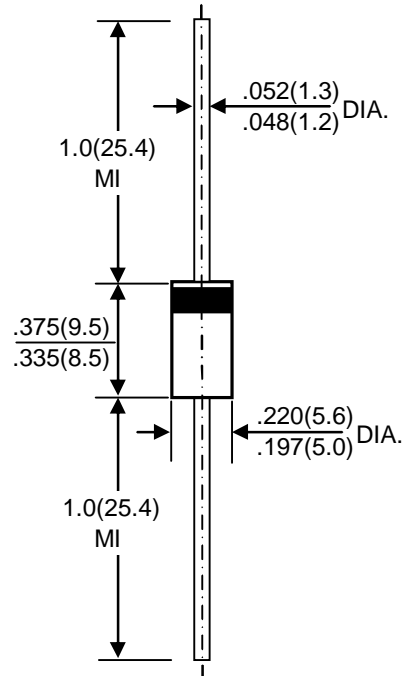
### FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04ounces , 1.1grams
- Mounting position: Any

### DO- 27



Dimensions in inches and (millimeters)

### 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%

| CHARACTERISTICS   | SYMBOL            | SR520       | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | UNIT |
|---|-------------------|-------------|-------|-------|-------|-------|-------|--------|------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>  | 20          | 30    | 40    | 50    | 60    | 80    | 100    | V    |
| Maximum RMS Voltage   | V <sub>RMS</sub>  | 14          | 21    | 28    | 35    | 42    | 56    | 70     | V    |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>   | 20          | 30    | 40    | 50    | 60    | 80    | 100    | V    |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) Lead Lengths @T <sub>L</sub> =95 °C         | I <sub>(AV)</sub> | 5.0         |       |       |       |       |       |        | A    |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method)  | I <sub>FSM</sub>  | 150         |       |       |       |       |       |        | A    |
| Maximum Forward Voltage at 5.0A DC  | V <sub>F</sub>    | 0.45        | 0.55  | 0.6   | 0.7   |       | 0.85  |        | V    |
| Maximum DC Reverse Current @T <sub>J</sub> =25°C<br>at Rated DC Blocking Voltage @T <sub>J</sub> =100°C | I <sub>R</sub>    | 1.0<br>50   |       |       |       |       |       |        | mA   |
| Typical Junction Capacitance (Note1)  | C <sub>J</sub>    | 500         |       |       | 350   |       |       | pF     |      |
| Typical Thermal Resistance (Note2)  | R <sub>θJA</sub>  | 15          |       |       | 10    |       |       | °C/W   |      |
| Operating Temperature Range   | T <sub>J</sub>    | -55 to +150 |       |       |       |       |       |        | °C   |
| Storage Temperature Range   | T <sub>STG</sub>  | -55 to +150 |       |       |       |       |       |        | °C   |

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction to ambient,

**RATING AND CHARACTERISTIC CURVES**  
**SR520 thru SR5100**



FIG. 1 - FORWARD CURRENT DERATING CURVE

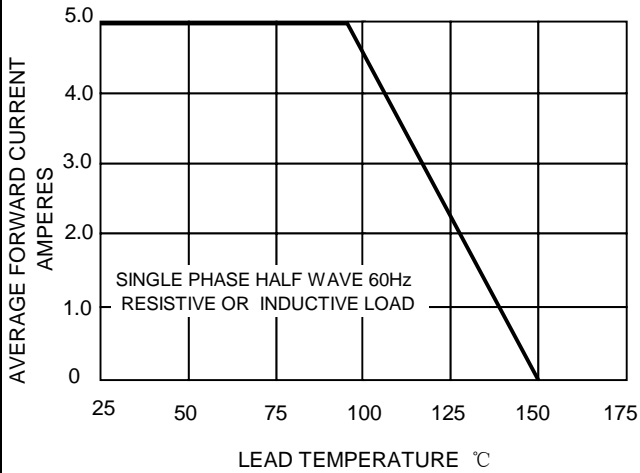


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

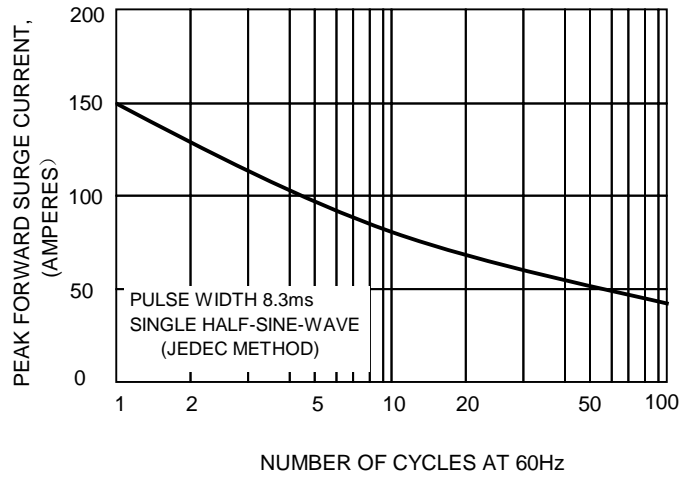


FIG.3 - TYPICAL JUNCTION CAPACITANCE

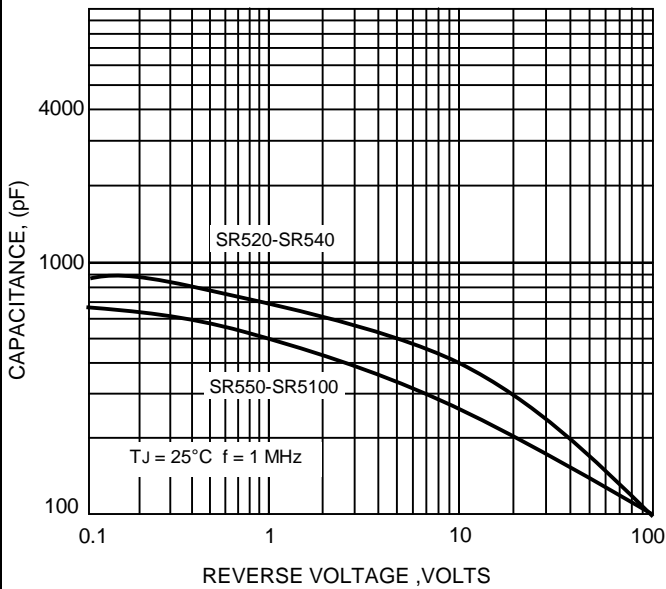


FIG.4-TYPICAL FORWARD CHARACTERISTICS

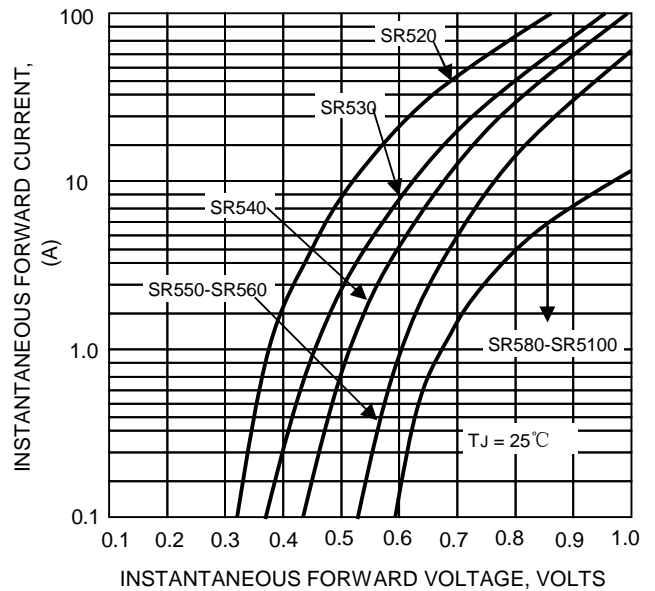


FIG.5-TYPICAL REVER CHARACTERISTICS

