



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**SR520  
THRU  
SR560**

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 20 to 60 Volts**

**CURRENT - 5.0 Amperes**

**FEATURES**

- \* High reliability
- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability

**MECHANICAL DATA**

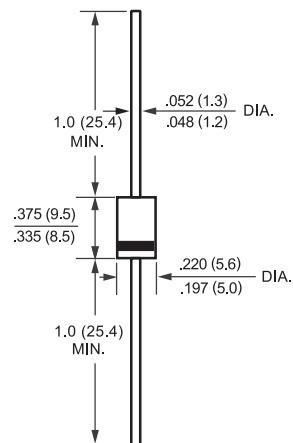
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.18 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



**DO-27**



Dimensions in inches and (millimeters)

|                                                                                                      |                          | SYMBOL           | SR520        | SR530 | SR540 | SR550 | SR560 | UNITS |
|------------------------------------------------------------------------------------------------------|--------------------------|------------------|--------------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                               |                          | V <sub>RRM</sub> | 20           | 30    | 40    | 50    | 60    | Volts |
| Maximum RMS Voltage                                                                                  |                          | V <sub>RMS</sub> | 14           | 21    | 28    | 35    | 42    | Volts |
| Maximum DC Blocking Voltage                                                                          |                          | V <sub>DC</sub>  | 20           | 30    | 40    | 50    | 60    | Volts |
| Maximum Average Forward Rectified Current<br>.375*(9.5mm) lead length                                |                          | I <sub>O</sub>   | 5.0          |       |       |       |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC Method) |                          | I <sub>FSM</sub> | 150          |       |       |       |       | Amps  |
| Maximum Instantaneous Forward Voltage at 5.0A DC                                                     |                          | V <sub>F</sub>   | .55          |       |       | .70   |       | Volts |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage                                           | @ T <sub>A</sub> = 25°C  | I <sub>R</sub>   | 5.0          |       |       |       |       | mAmps |
|                                                                                                      | @ T <sub>A</sub> = 100°C |                  | 50           |       |       |       |       |       |
| Typical Thermal Resistance (Note 1)                                                                  |                          | R θ J A          | 18           |       |       |       |       | °C/W  |
| Typical Junction Capacitance (Note 2)                                                                |                          | C <sub>J</sub>   | 550          |       |       | 400   |       | pF    |
| Operating Temperature Range                                                                          |                          | T <sub>J</sub>   | -65 to + 150 |       |       |       |       | °C    |
| Storage Temperature Range                                                                            |                          | T <sub>STG</sub> | -65 to + 150 |       |       |       |       | °C    |

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5\*(12.7mm) Lead Length.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

## RATING AND CHARACTERISTIC CURVES (SR520 THRU SR560)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

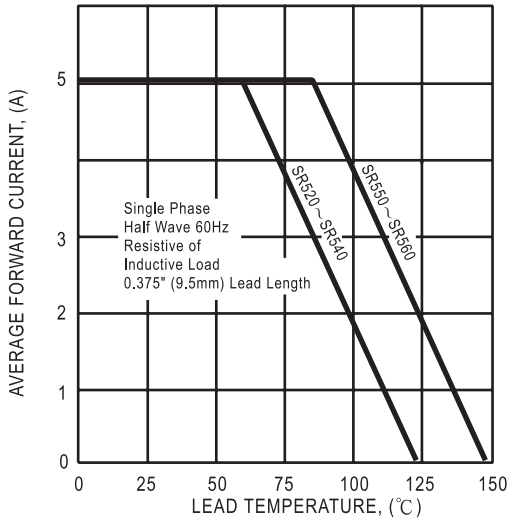


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

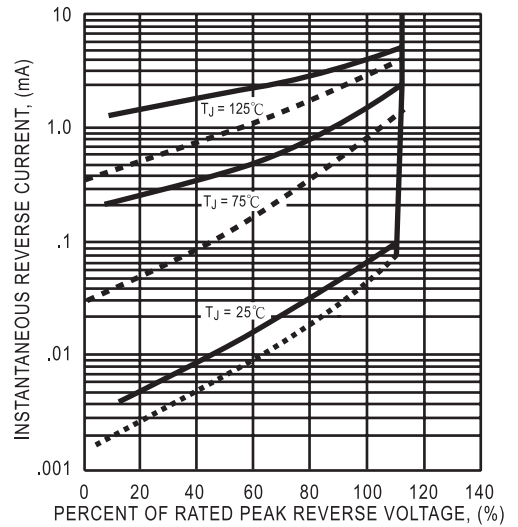


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

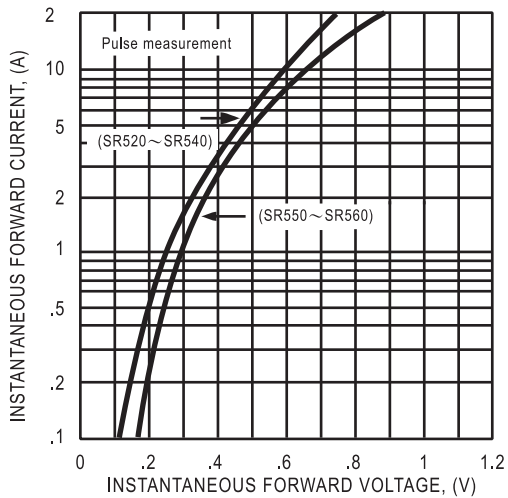


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

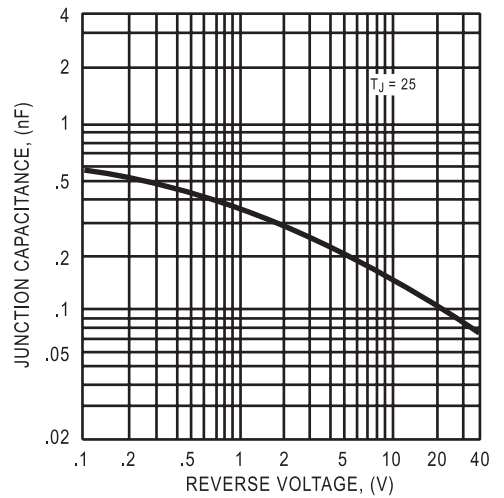
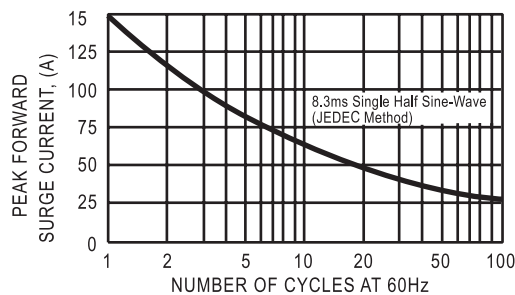


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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