

# SR520 THRU SR5100

## 5.0 AMP SCHOTTKY BARRIER RECTIFIERS



### FEATURES

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

### MECHANICAL DATA

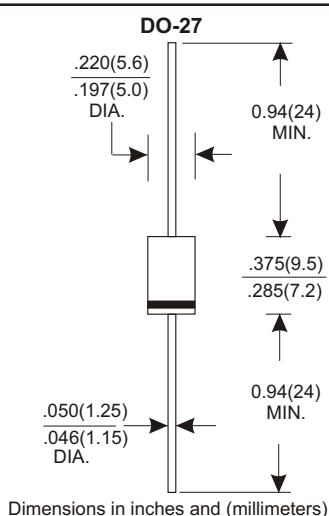
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams

### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

5.0 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                                                                                        | SR520      | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | 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                                                          |            |       |       |       |       |       |        |       |
| See Fig. 1                                                                                         | 5.0        |       |       |       |       |       |        | 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 5.0A                                                      | 0.55       |       |       | 0.70  |       | 0.85  |        | V     |
| Maximum DC Reverse Current Ta=25°C                                                                 | 0.1        |       |       |       |       | 0.02  |        | mA    |
| at Rated DC Blocking Voltage Ta=100°C                                                              | 5          |       |       |       |       | 2     |        | mA    |
| Typical Junction Capacitance (Note1)                                                               | 380        |       |       |       |       |       |        | pF    |
| Typical Thermal Resistance R JA (Note 2)                                                           | 10         |       |       |       |       |       |        | °C/W  |
| Operating Temperature Range Tj                                                                     | -65 — +150 |       |       |       |       |       |        | °C    |
| Storage Temperature Range Tstg                                                                     | -65 — +150 |       |       |       |       |       |        | °C    |

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

## RATING AND CHARACTERISTIC CURVES (SR520 THRU SR5100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

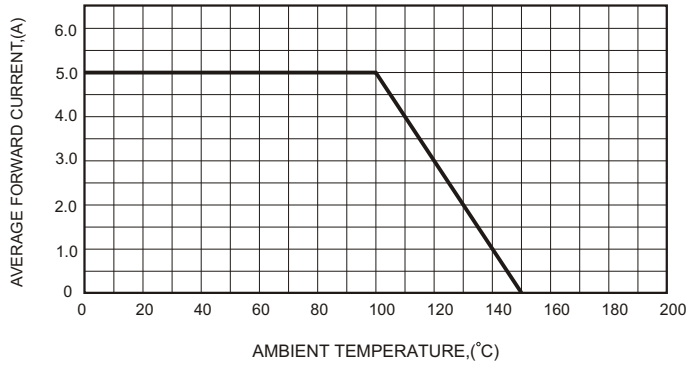


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

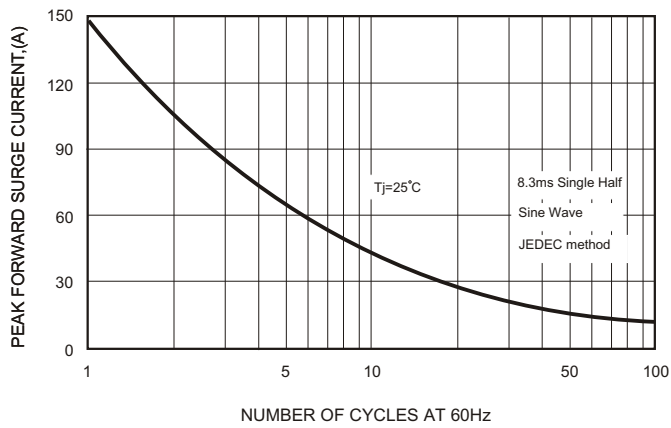


FIG.4-TYPICAL JUNCTION CAPACITANCE

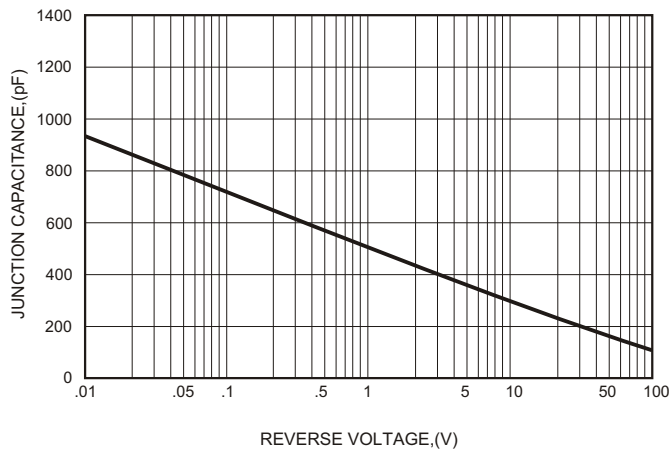


FIG.2-TYPICAL FORWARD CHARACTERISTICS

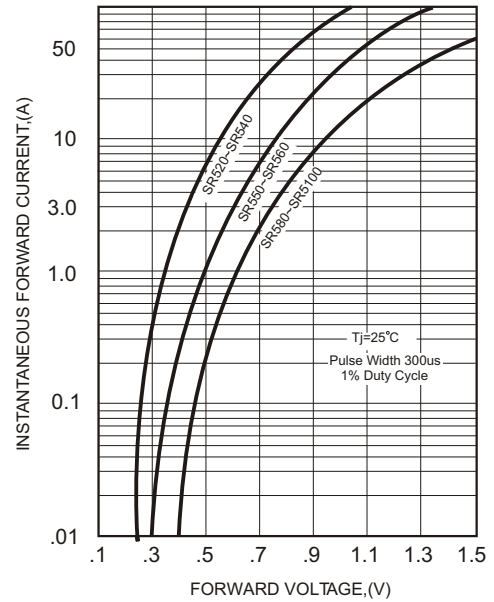


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

