



# SR540L THRU SR5100L

## 5.0 AMP SCHOTTKY BARRIER RECTIFIERS



### FEATURES

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

### MECHANICAL DATA

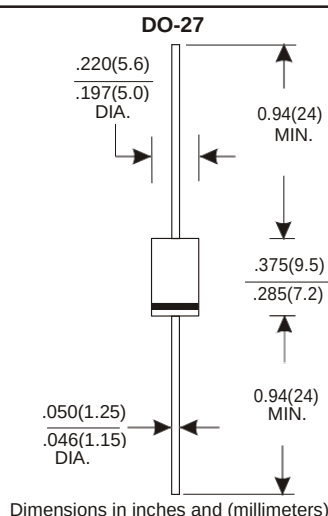
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams

### VOLTAGE RANGE

40 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                                                                                        | SR540L      | SR560L | SR5100L | UNITS |
|----------------------------------------------------------------------------------------------------|-------------|--------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                             | 40          | 60     | 100     | V     |
| Maximum RMS Voltage                                                                                | 28          | 42     | 70      | V     |
| Maximum DC Blocking Voltage                                                                        | 40          | 60     | 100     | V     |
| Maximum Average Forward Rectified Current                                                          | 5.0         |        |         | A     |
| See Fig. 1                                                                                         |             |        |         |       |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 120         |        |         | A     |
| Maximum Instantaneous Forward Voltage at 5.0A                                                      | 0.46        | 0.55   | 0.67    | V     |
| Maximum DC Reverse Current Ta=25°C                                                                 | 200         |        |         | µA    |
| at Rated DC Blocking Voltage Ta=100°C                                                              | 20          |        |         | mA    |
| Typical Junction Capacitance (Note1)                                                               | 570         |        |         | pF    |
| Typical Thermal Resistance R JA (Note 2)                                                           | 20          |        |         | °C/W  |
| Operating Temperature Range Tj                                                                     | -55 to +150 |        |         | °C    |
| Storage Temperature Range Tstg                                                                     | -55 to +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.

3.0  
2.5  
2.0  
1.5  
1.0  
0.5

## RATING AND CHARACTERISTIC CURVES (SR540L THUR SR5100L)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

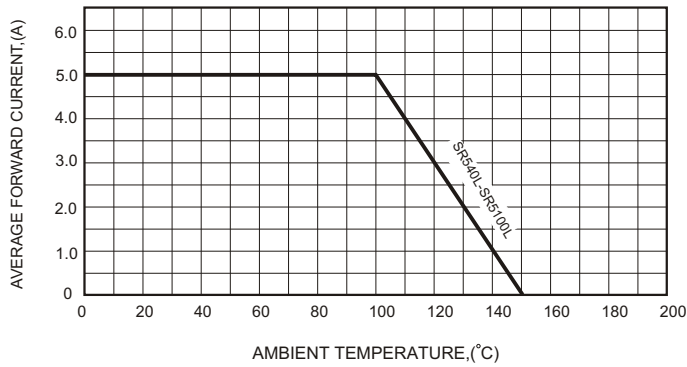


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

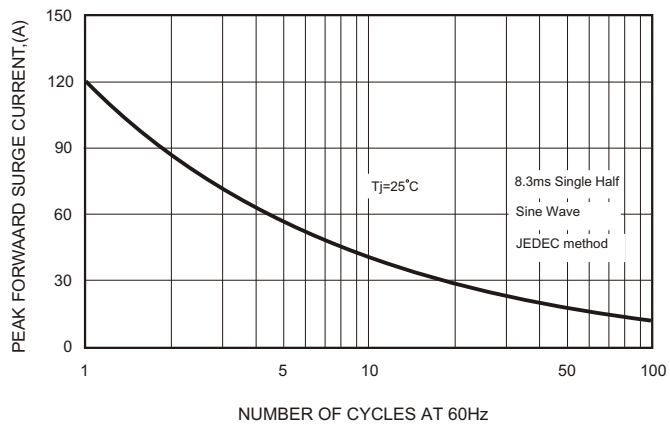


FIG.4-TYPICAL JUNCTION CAPACITANCE

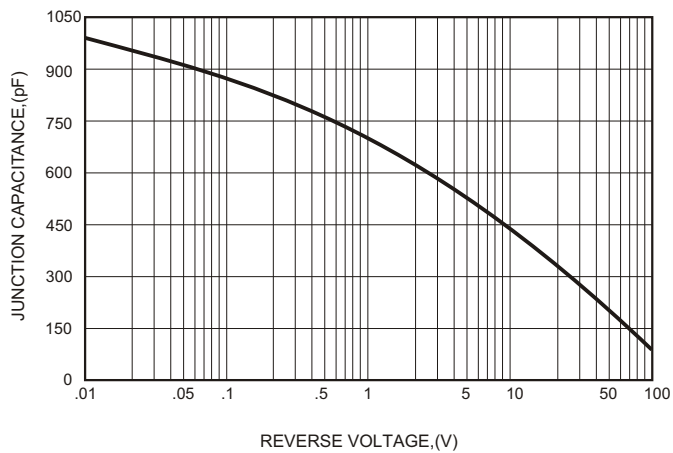


FIG.2-TYPICAL FORWARD CHARACTERISTICS

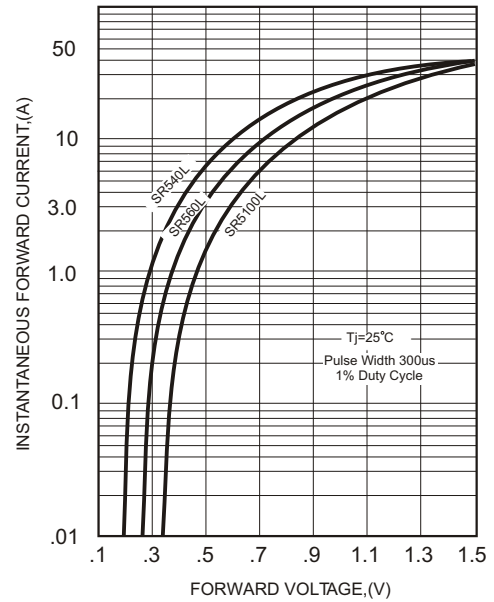


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

