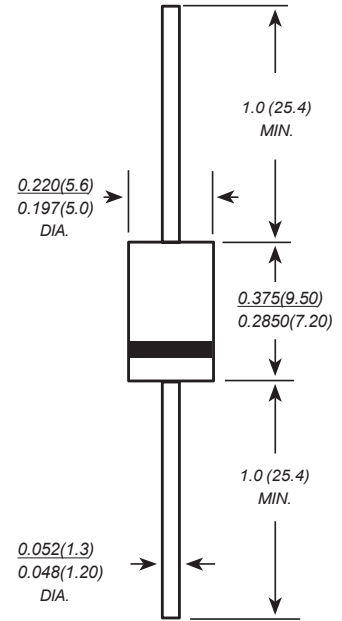


## SCHOTTKY BARRIER RECTIFIERS

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
- ◆ 250°C/ 10 seconds at terminals

### DO-201AD



Dimensions in inches and (millimeters)

## Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                              | SYMBOLS           | SR520L      | SR530L | SR540L | SR550L | SR560L | SR580L      | SR5100L | UNITS |
|--------------------------------------------------------------------------------------------------------|-------------------|-------------|--------|--------|--------|--------|-------------|---------|-------|
| Marking Code                                                                                           |                   |             |        |        |        |        |             |         |       |
| Maximum repetitive 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 at T <sub>A</sub> =75°C                                      | I <sub>(AV)</sub> | 5.0         |        |        |        |        |             |         | A     |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>  | 150         |        |        |        |        |             |         | A     |
| Maximum instantaneous forward voltage at 5.0A                                                          | V <sub>F</sub>    | 0.45        |        |        | 0.50   |        | 0.70        |         | V     |
| Maximum DC reverse current T <sub>A</sub> =25°C<br>at rated DC blocking voltage T <sub>A</sub> =100°C  | I <sub>R</sub>    | 0.5<br>20.0 |        |        |        |        | 0.2<br>10.0 |         | mA    |
| Typical junction capacitance (NOTE 1)                                                                  | C <sub>J</sub>    | 500         |        |        | 400    |        |             |         | pF    |
| Typical thermal resistance (NOTE 2)                                                                    | R <sub>θJA</sub>  | 25.0        |        |        |        |        |             |         | °C/W  |
| Operating junction temperature range                                                                   | T <sub>J</sub>    | -55 to +125 |        |        |        |        | -55 to +150 |         | °C    |
| Operating junction and storage temperature range                                                       | T <sub>STG</sub>  | -55 to +150 |        |        |        |        |             |         | °C    |

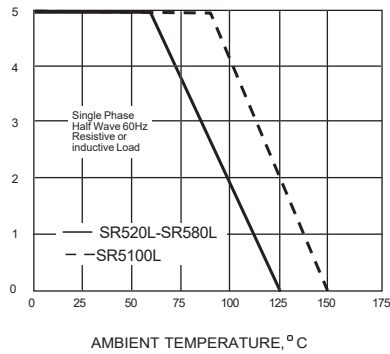
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

## Ratings And Characteristic Curves

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,  
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

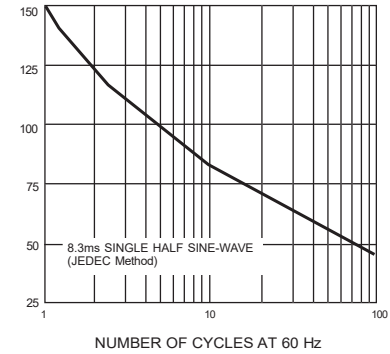
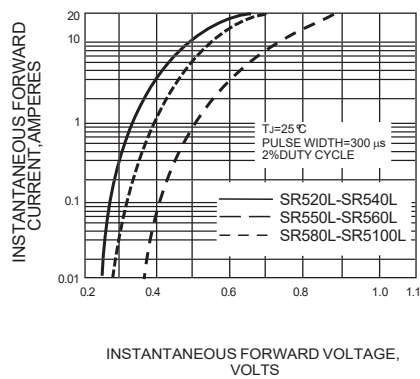


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

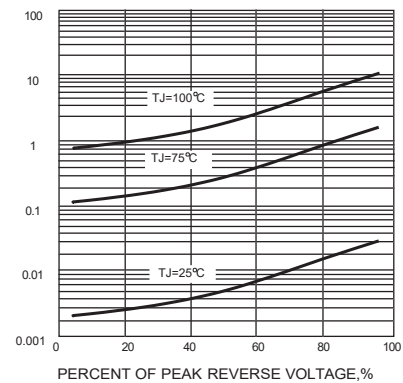
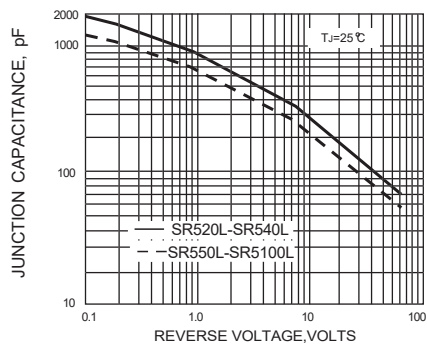
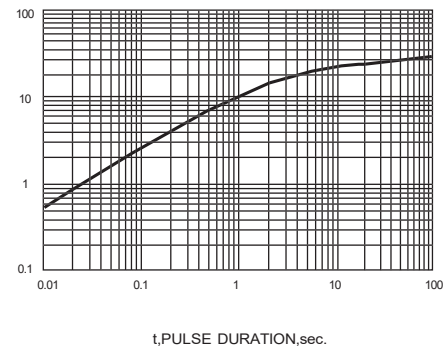


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.