

**SCHOTTKY BARRIER RECTIFIERS**

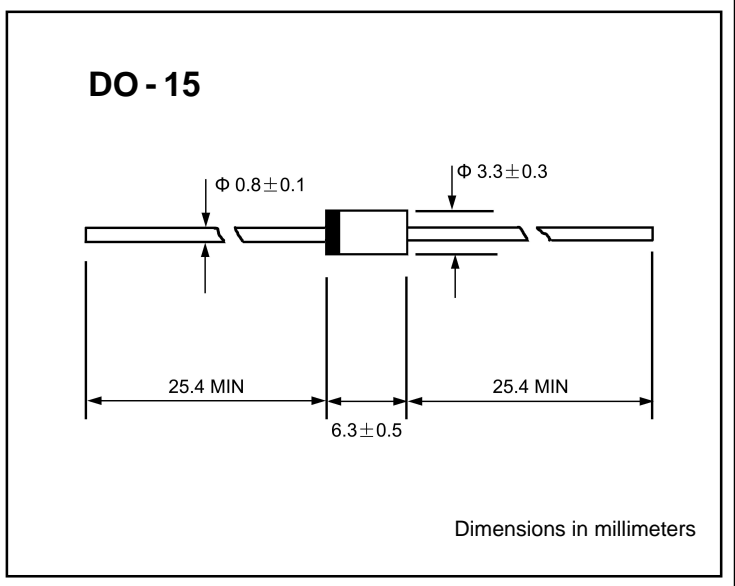
**VOLTAGE RANGE: 20 --- 100 V**  
**CURRENT: 2.0 A**

**FEATURES**

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

**MECHANICAL DATA**

- ◇ Case: JEDEC DO--15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL- STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

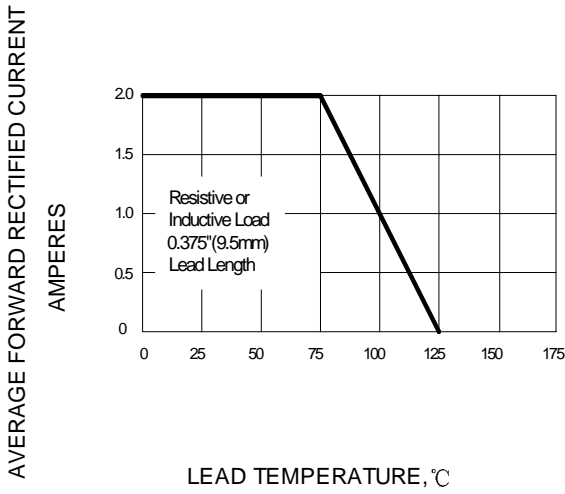
Ratings at 25°C ambient temperature unless otherwise specified.

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

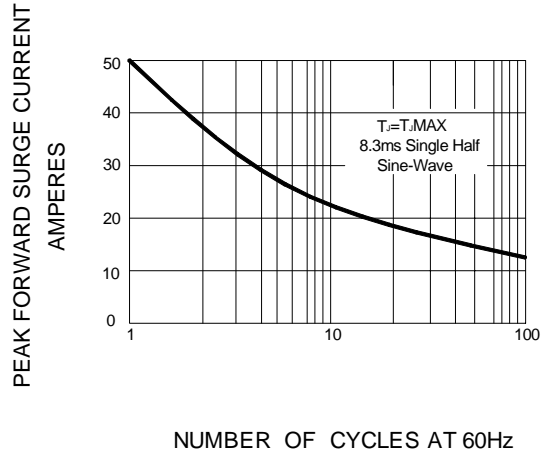
|   |                 | SR220           | SR230 | SR240 | SR250 | SR260 | SR280 | SR2A0 | UNITS |
|---|-----------------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum recurrent peak reverse voltage  | $V_{RRM}$       | 20              | 30    | 40    | 50    | 60    | 80    | 100   | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 14              | 21    | 28    | 35    | 42    | 56    | 70    | V     |
| Maximum DC blocking voltage   | $V_{DC}$        | 20              | 30    | 40    | 50    | 60    | 80    | 100   | V     |
| Maximum average forward rectified current<br>9.5mm lead length, @ $T_A=75^\circ C$                          | $I_{F(AV)}$     | 2.0             |       |       |       |       |       |       | A     |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load @ $T_J=125^\circ C$ | $I_{FSM}$       | 50.0            |       |       |       |       |       |       | A     |
| Maximum instantaneous forward voltage<br>@ 2.0A (Note 1)  | $V_F$           | 0.55            |       | 0.7   |       | 0.85  |       | V     |       |
| Maximum reverse current @ $T_A=25^\circ C$<br>at rated DC blocking voltage @ $T_A=100^\circ C$              | $I_R$           | 1.0<br>10.0     |       |       |       |       |       |       | mA    |
| Typical junction capacitance (Note2)  | $C_J$           | 170             |       |       |       |       |       |       | pF    |
| Typical thermal resistance (Note3)  | $R_{\theta JA}$ | 35              |       |       |       |       |       |       | °C/W  |
| Operating junction temperature range  | $T_J$           | - 55 ---- + 125 |       |       |       |       |       |       | °C    |
| Storage temperature range   | $T_{STG}$       | - 55 ---- + 150 |       |       |       |       |       |       | °C    |

NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.  
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 3. Thermal resistance junction to ambient

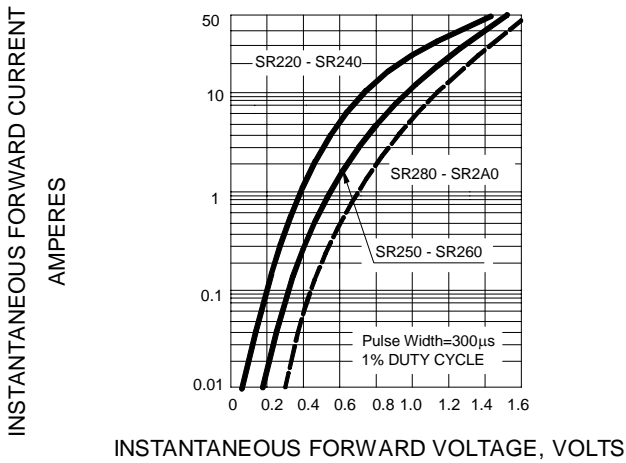
**FIG.1 -- FORWARD CURRENT DERATING CURVE**



**FIG.2 -- PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**

