

**PLASTIC SILICON RECTIFIERS**

**VOLTAGE RANGE: 200 --- 1000 V**  
**CURRENT: 1.5 A**

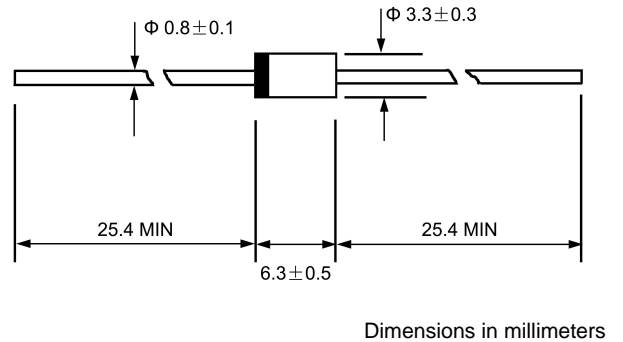
**FEATURES**

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

**MECHANICAL DATA**

- ◇ Case: JEDEC DO-15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any

**DO - 15**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

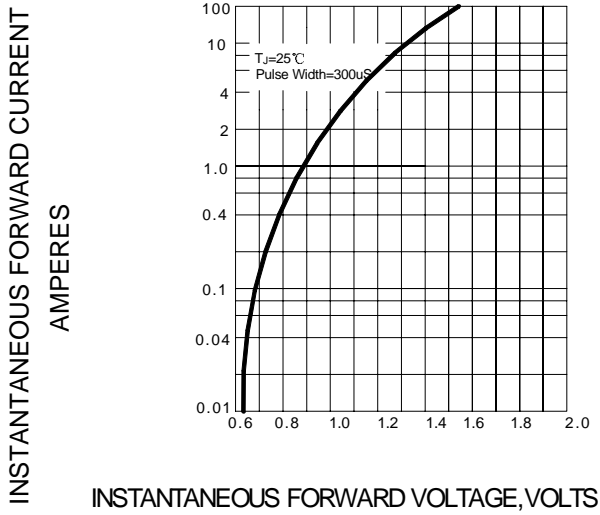
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

|   |                 | ERC01-02        | ERC01-04 | ERC01-06 | ERC01-10 | UNITS        |
|---|-----------------|-----------------|----------|----------|----------|--------------|
| Maximum recurrent peak reverse voltage  | $V_{RRM}$       | 200             | 400      | 600      | 1000     | V            |
| Maximum RMS voltage   | $V_{RMS}$       | 140             | 280      | 420      | 700      | V            |
| Maximum DC blocking voltage   | $V_{DC}$        | 200             | 400      | 600      | 1000     | V            |
| Maximum average forward rectified current<br>9.5mm lead length, @ $T_A=75^\circ C$                          | $I_{F(AV)}$     | 1.5             |          |          |          | A            |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load @ $T_J=125^\circ C$ | $I_{FSM}$       | 130.0           |          |          |          | A            |
| Maximum instantaneous forward voltage<br>@ 1.5 A  | $V_F$           | 1.0             |          |          |          | V            |
| Maximum reverse current @ $T_A=25^\circ C$<br>at rated DC blocking voltage @ $T_A=100^\circ C$              | $I_R$           | 5.0<br>50.0     |          |          |          | $\mu A$      |
| Typical junction capacitance (Note1)  | $C_J$           | 20              |          |          |          | pF           |
| Typical thermal resistance (Note2)  | $R_{\theta JA}$ | 40              |          |          |          | $^\circ C/W$ |
| Operating junction temperature range  | $T_J$           | - 55 ---- + 150 |          |          |          | $^\circ C$   |
| Storage temperature range   | $T_{STG}$       | - 55 ---- + 150 |          |          |          | $^\circ C$   |

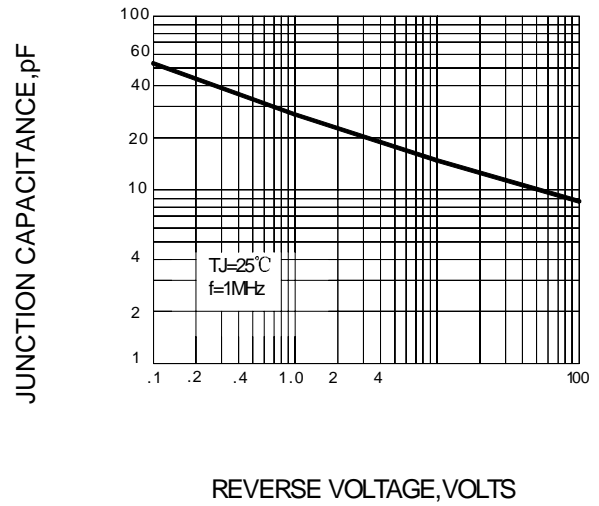
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

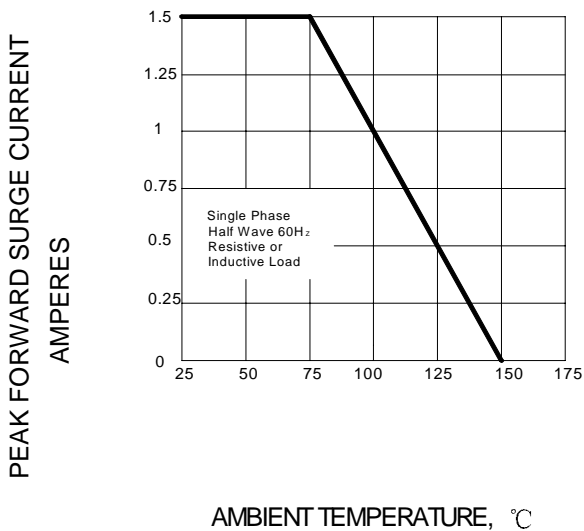
**FIG.1 – FORWARD CHARACTERISTIC**



**FIG.2 – JUNCTION CHARACTERISTICS**



**FIG.3 –CURRENT DERATING CURVE**



**FIG.4 –PEAK FORWARD SURGE CURRENT**

