

**PLASTIC SILICON RECTIFIERS**

**VOLTAGE RANGE: 100 --- 1000 V**  
**CURRENT: 5.0 A**

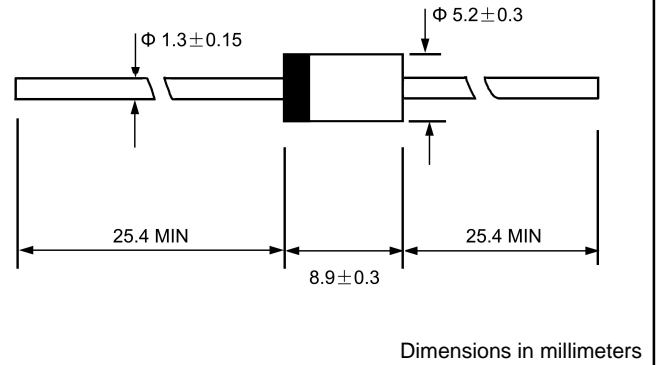
**FEATURES**

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon,Isopropanol and similar solvents

**MECHANICAL DATA**

- ◇ Case: JEDEC DO-27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces,1.15 grams
- ◇ Mounting position: Any

**DO - 27**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

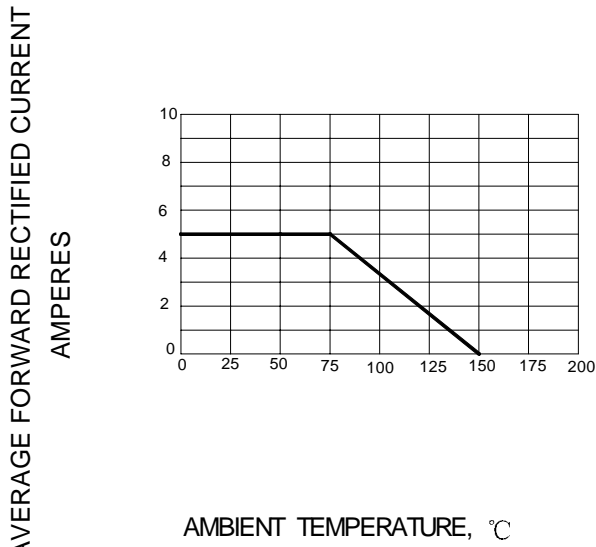
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase,half wave,50 Hz,resistive or inductive load. For capacitive load,derate by 20%.

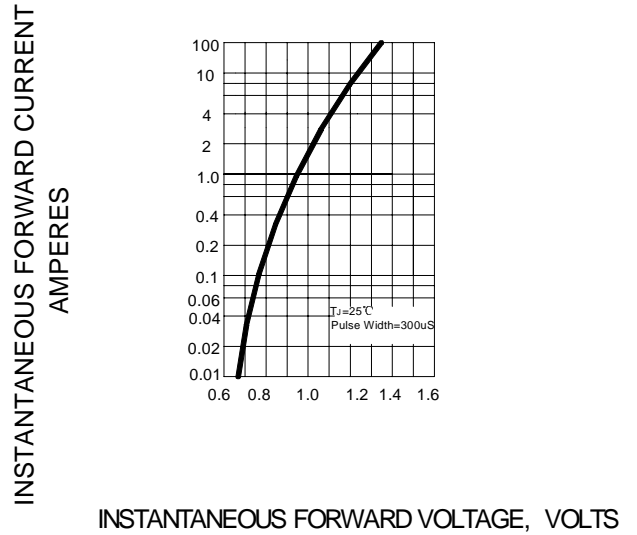
|  |                 | 5A1            | 5A2 | 5A4 | 5A6 | 5A8 | 5A10 | UNITS        |
|--|-----------------|----------------|-----|-----|-----|-----|------|--------------|
| Maximum recurrent peak reverse voltage   | $V_{RRM}$       | 100            | 200 | 400 | 600 | 800 | 1000 | V            |
| Maximum RMS voltage  | $V_{RMS}$       | 70             | 140 | 280 | 420 | 560 | 700  | V            |
| Maximum DC blocking voltage  | $V_{DC}$        | 100            | 200 | 400 | 600 | 800 | 1000 | V            |
| Maximum average forward rectified current<br>9.5mm lead length, @ $T_A=75^\circ C$                         | $I_{F(AV)}$     | 5.0            |     |     |     |     |      | A            |
| Peak forward surge current<br>10ms single half-sine-wave<br>superimposed on rated load @ $T_J=125^\circ C$ | $I_{FSM}$       | 300            |     |     |     |     |      | A            |
| Maximum instantaneous forward voltage<br>@5.0A   | $V_F$           | 1.2            |     |     |     |     |      | V            |
| Maximum reverse current @ $T_A=25^\circ C$<br>at rated DC blocking voltage @ $T_A=100^\circ C$             | $I_R$           | 10.0<br>100.0  |     |     |     |     |      | $\mu A$      |
| Typical junction capacitance (Note1)   | $C_J$           | 80             |     |     |     |     |      | pF           |
| Typical thermal resistance (Note2)   | $R_{\theta JA}$ | 15             |     |     |     |     |      | $^\circ C/W$ |
| 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.

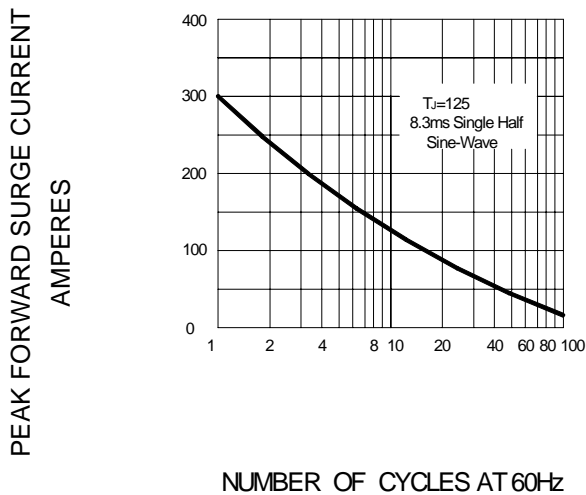
**FIG.1 – FORWARD DERATING CURVE**



**FIG.2 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**

