

**VOLTAGE RANGE: 2500 - 3000V**

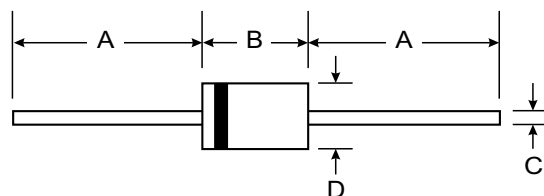
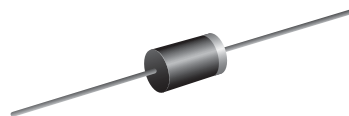
**CURRENT: 0.2 A**

### Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol
- and similar solvents

### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per
- MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.35 grams
- Mounting Position: Any
- Marking: Type Number



| DO-41 Plastic        |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 25.40 | —     |
| B                    | 4.06  | 5.21  |
| C                    | 0.71  | 0.884 |
| D                    | 2.00  | 2.72  |
| All Dimensions in mm |       |       |

### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

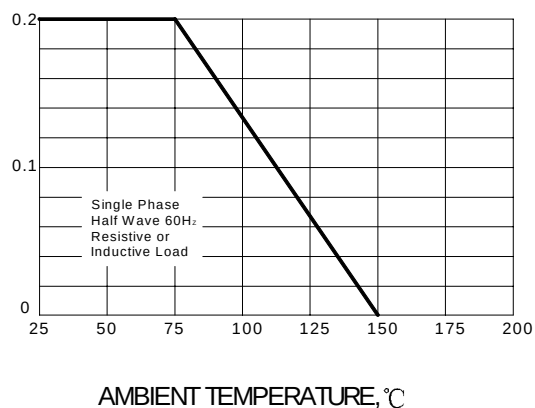
| Characteristic                                                                                                      | Symbol      | R2500F          | R3000F | Unit             |
|---------------------------------------------------------------------------------------------------------------------|-------------|-----------------|--------|------------------|
| Maximum recurrent peak reverse voltage                                                                              | $V_{RRM}$   | 2500            | 3000   | V                |
| Maximum RMS voltage                                                                                                 | $V_{RMS}$   | 1750            | 2100   | V                |
| Maximum DC blocking voltage                                                                                         | $V_{DC}$    | 2500            | 3000   | V                |
| Maximum average forward rectified current<br>9.5mm lead length, @ $T_A = 75^\circ\text{C}$                          | $I_{F(AV)}$ | 0.2             |        | A                |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load @ $T_J = 125^\circ\text{C}$ | $I_{FSM}$   | 30.0            |        | A                |
| Maximum instantaneous forward voltage<br>@ 0.2A                                                                     | $V_F$       | 4.0             | 5.0    | V                |
| Maximum reverse current @ $T_A = 25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$      | $I_R$       | 5.0<br>100.0    |        | $\mu\text{A}$    |
| Maximum reverse recovery time (Note1)                                                                               | $t_{rr}$    | 500             |        | ns               |
| Typical junction capacitance (Note2)                                                                                | $C_J$       | 15              |        | pF               |
| Operating junction temperature range                                                                                | $T_J$       | - 55 ---- + 150 |        | $^\circ\text{C}$ |
| Storage temperature range                                                                                           | $T_{STG}$   | - 55 ---- + 150 |        | $^\circ\text{C}$ |

NOTE: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{rr} = 0.25\text{A}$ .

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

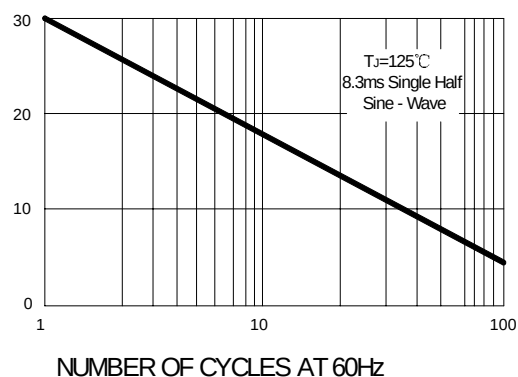
AVERAGE FORWARD RECTIFIED CURRENT  
AMPERES

**FIG.1 – FORWARD DERATING CURVE**

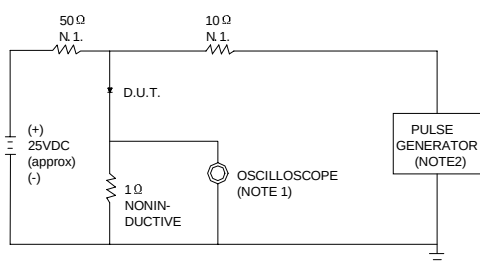


PEAK FORWARD SURGE CURRENT  
AMPERES

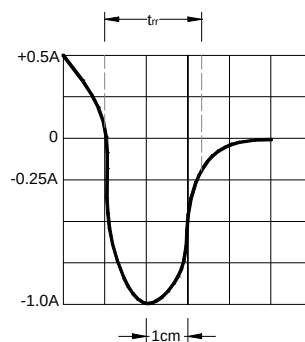
**FIG.2 – PEAK FORWARD SURGE CURRENT**



**FIG.3 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE =  $1\text{M}\Omega$ , 22pF.  
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE =  $50\Omega$ .



SET TIME BASE FOR 50/100 ns/cm