

**2.0 Amp Glass Passivated Super Fast Rectifiers - 50~600Volts**

**DO-15 Package**

**Features**

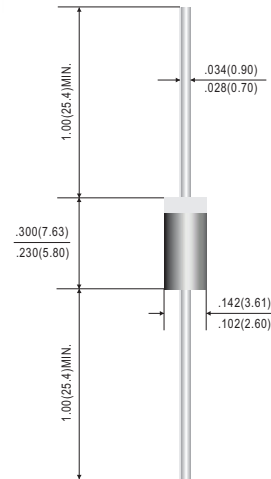
- Glass Passivated Chip
- Low Forward Voltage
- High Current Capability
- High reliability
- Super Fast Switching Speed
- High Surge Current Capability
- Moisture Sensitivity Level 1
- RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"

**Mechanical Date**

- Case: Molded Plastic, DO-15
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.015 ounce, 0.38 gram (Approximate)



**DO-15**



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, derate current by 20%

| RATINGS  |            | SYMBOLS         | SF21G     | SF22G | SF23G | SF24G | SF25G | SF26G | SF28G | UNITS |
|--|------------|-----------------|-----------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage   |            | $V_{RRM}$       | 50        | 100   | 150   | 200   | 300   | 400   | 600   | Volts |
| Maximum RMS Voltage  |            | $V_{RMS}$       | 35        | 70    | 105   | 140   | 210   | 280   | 420   | Volts |
| Maximum DC Blocking Voltage  |            | $V_{DC}$        | 50        | 100   | 150   | 200   | 300   | 400   | 600   | Volts |
| Maximum Average Forward rectifier Current<br>0.375" (9.5mm) Lead length at Ta = 55°C                 |            | $I_{F(AV)}$     | 2.0       |       |       |       |       |       |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) |            | $I_{FSM}$       | 50        |       |       |       |       |       |       | Amps  |
| Maximum Instantaneous Forward Voltage at 2.0A DC   |            | $V_F$           | 0.95      |       |       |       | 1.30  |       | 1.75  | Volts |
| Maximum DC Reverse Current at<br>Rated DC Blocking Voltage   | @ Ta=25°C  | $I_R$           | 5.0       |       |       |       |       |       |       | µA    |
|  | @ Ta=100°C |                 | 100       |       |       |       |       |       |       |       |
| Maximum Reverse Recovery Time (Note 1)   |            | $T_{RR}$        | 35        |       |       |       |       |       |       | ns    |
| Typical Thermal Resistance (Note 3)  |            | $R_{\theta JA}$ | 45        |       |       |       |       |       |       | °C/W  |
|  |            | $R_{\theta JL}$ | 18        |       |       |       |       |       |       |       |
| Typical Junction Capacitance (Note 2)  |            | $C_J$           | 35        |       |       |       | 25    |       |       | pF    |
| Operating and Storage Temperature Range  |            | $T_J, T_{STG}$  | -55 ~ 150 |       |       |       |       |       |       | °C    |

**Notes:**

1. Test Conditions:  $I_F = 0.5A$ ,  $I_R = -1.0A$ ,  $I_{RR} = -0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0VDC.
3. Typical Thermal Resistance: At 9.5mm lead lengths, PCB mounted.

**RATING AND CHARACTERISTICS CURVES**

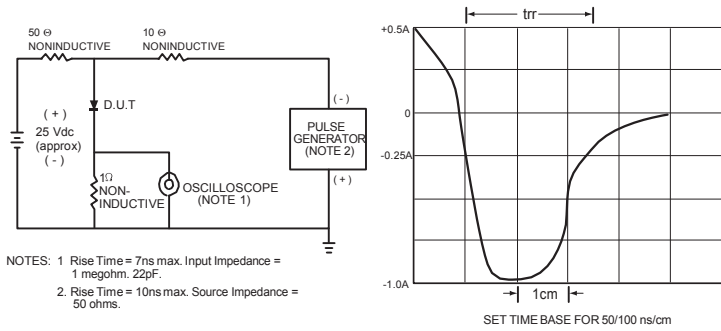


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

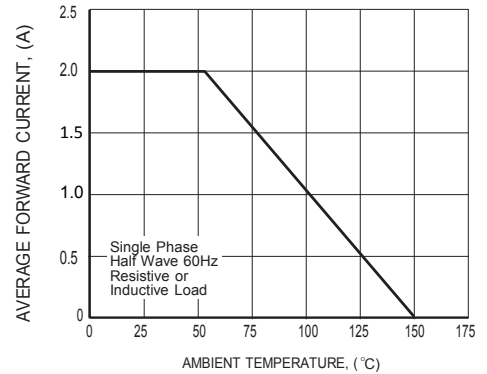


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

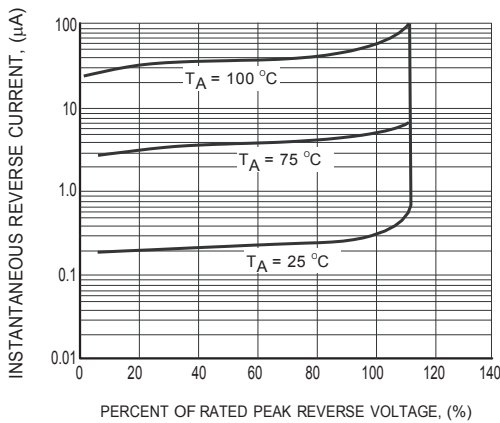


FIG.3 TYPICAL REVERSE CHARACTERISTICS

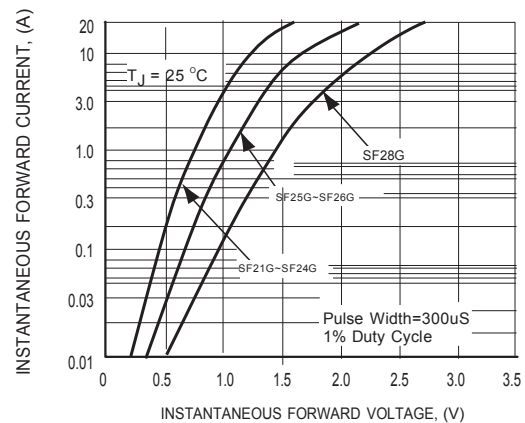


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

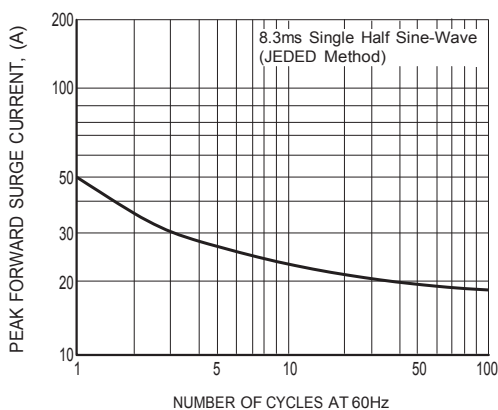


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

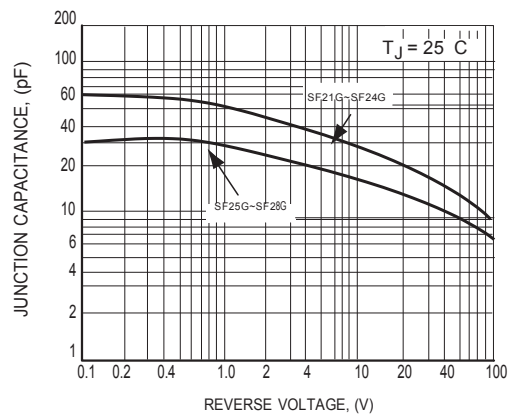


FIG.6 TYPICAL JUNCTION CAPACITANCE