

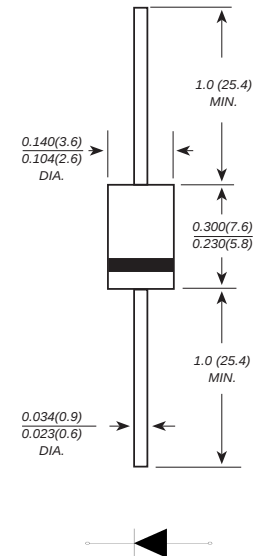
# FR207G

## 2.0Amp Fast Recovery Rectifiers

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
260°C/10 seconds at terminals

### DO-15



Dimensions in inches and (millimeters)

### Mechanical Data

**Case :** Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.0116 ounce, 0.33 grams

### 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 current derate by 20%.

| Parameter                                                                                                 | SYMBOLS        | FR207G      | UNITS              |
|-----------------------------------------------------------------------------------------------------------|----------------|-------------|--------------------|
| Maximum repetitive peak reverse voltage                                                                   | $V_{RRM}$      | 1000        | V                  |
| Maximum RMS voltage                                                                                       | $V_{RMS}$      | 700         | V                  |
| Maximum DC blocking voltage                                                                               | $V_{DC}$       | 1000        | V                  |
| Maximum average forward rectified current at $T_L=100^\circ\text{C}$                                      | $I_{(AV)}$     | 2.0         | A                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                        | $I_{FSM}$      | 60.0        | A                  |
| Maximum instantaneous forward voltage at 2.0A                                                             | $V_F$          | 1.30        | V                  |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$ | $I_R$          | 5.0<br>200  | $\mu\text{A}$      |
| Maximum reverse recovery time (Note 1)                                                                    | $T_{rr}$       | 500         | ns                 |
| Typical junction capacitance (Note 2)                                                                     | $C_J$          | 30.0        | pF                 |
| Typical thermal resistance                                                                                | $R_{qJA}$      | 75.0        | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                          | $T_J, T_{STG}$ | -55 to +150 | $^\circ\text{C}$   |

**Note:** 1.Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

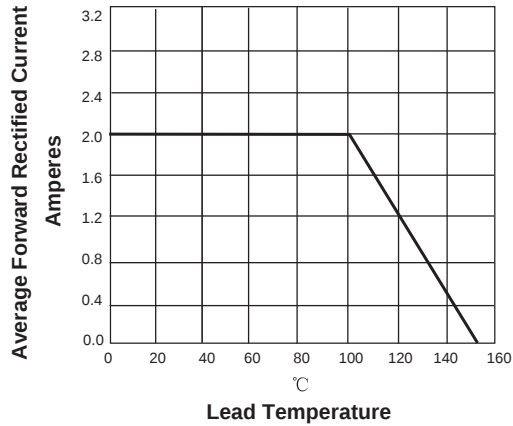


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

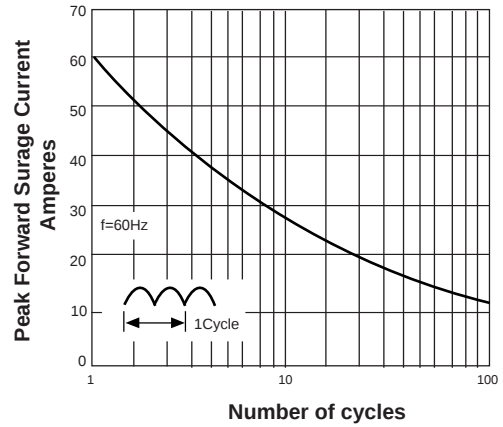


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

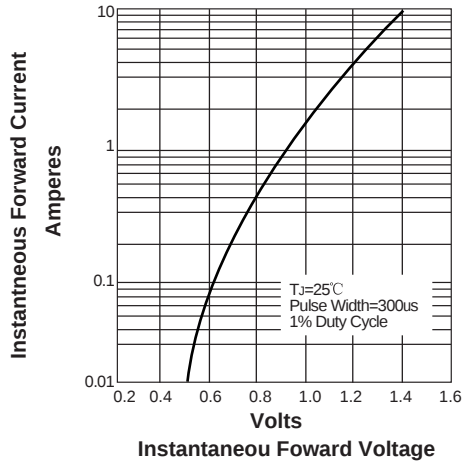


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

