

# FR601G THRU FR607G

## FAST RECOVERY PLASTIC RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 6.0A

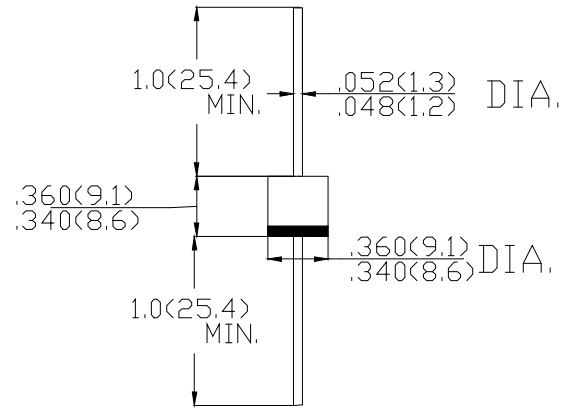
### FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability

### MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 0.38 grams

### R-6



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%.

|   | SYMBOL    | FR6<br>01G | FR6<br>02G | FR6<br>03G | FR6<br>04G | FR6<br>05G | FR6<br>06G | FR6<br>07G | units         |
|---|-----------|------------|------------|------------|------------|------------|------------|------------|---------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$ | 50         | 100        | 200        | 400        | 600        | 800        | 1000       | V             |
| Maximum RMS Voltage   | $V_{RMS}$ | 35         | 70         | 140        | 280        | 420        | 560        | 700        | V             |
| Maximum DC Blocking Voltage   | $V_{DC}$  | 50         | 100        | 200        | 400        | 600        | 800        | 1000       | V             |
| Maximum Average Forward rectified Current at $T_A=75^\circ\text{C}$                                       | $I_o$     | 6.0        |            |            |            |            |            |            | A             |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)           | $I_{FSM}$ | 200        |            |            |            |            |            |            | A             |
| Maximum Instantaneous forward Voltage at 6.0A DC  | $V_F$     | 1.3        |            |            |            |            |            |            | V             |
| Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$                            | $I_R$     | 10         |            |            |            |            |            |            | $\mu\text{A}$ |
| Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at $T_L=55^\circ\text{C}$ |           | 150        |            |            |            |            |            |            |               |
| Maximum Reverse Recovery Time (Note 1)  | $t_{rr}$  | 150        |            |            | 250        | 500        |            | nS         |               |
| Typical Junction Capacitance (Note 2)   | $C_J$     | 65         |            |            |            |            |            |            | pF            |

Notes: 1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0 volts