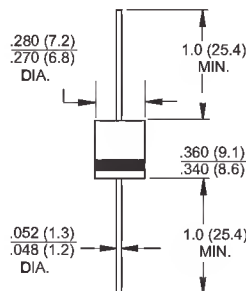


### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

### Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, Lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 260 °C /10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Mounting position: Any
- ✧ Weight: 1.65 grams



Dimensions in inches and (millimeters)

#### Marking Diagram



FR60XG = Specific Device Code  
G = Green Compound  
Y = Year  
WW = Work Week

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number                                                                                             | Symbol            | FR 601G     | FR 602G | FR 603G | FR 604G | FR 605G | FR 606G | FR 607G | Units |
|---------------------------------------------------------------------------------------------------------|-------------------|-------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | V <sub>RRM</sub>  | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V     |
| Maximum RMS Voltage                                                                                     | V <sub>RMS</sub>  | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V     |
| Maximum DC Blocking Voltage                                                                             | V <sub>DC</sub>   | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V     |
| Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T <sub>A</sub> = 55 °C              | I <sub>(AV)</sub> | 6.0         |         |         |         |         |         |         | A     |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )     | I <sub>FSM</sub>  | 250         |         |         |         |         |         |         | A     |
| Maximum Instantaneous Forward Voltage @ 6.0A                                                            | V <sub>F</sub>    | 1.3         |         |         |         |         |         |         | V     |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>A</sub> =25 °C @ T <sub>A</sub> =125 °C | I <sub>R</sub>    | 5.0<br>200  |         |         |         |         |         |         | uA    |
| Maximum Reverse Recovery Time ( Note 1 )                                                                | T <sub>rr</sub>   | 150         |         |         |         | 250     | 500     |         | nS    |
| Typical Junction Capacitance ( Note 2 )                                                                 | C <sub>j</sub>    | 50          |         |         |         |         |         |         | pF    |
| Typical Thermal Resistance (Note 3)                                                                     | R <sub>θJA</sub>  | 30          |         |         |         |         |         |         | °C/W  |
| Operating Temperature Range                                                                             | T <sub>J</sub>    | -65 to +150 |         |         |         |         |         |         | °C    |
| Storage Temperature Range                                                                               | T <sub>STG</sub>  | -65 to +150 |         |         |         |         |         |         | °C    |

Notes: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$   
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.  
3. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

Version: B08