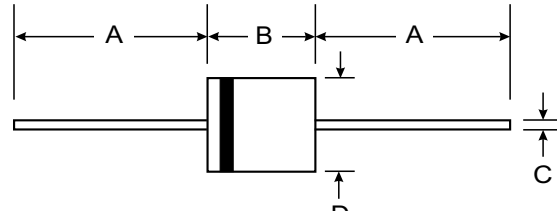


### Features

- Low Reverse Recovery Time
- Low Reverse Current
- Low Forward Voltage Drop
- High Current Capability
- Plastic Material: UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: R-6, Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202 Method 208
- Polarity: Color Band Denotes Cathode
- Weight: 1.7 grams (approx.)
- Mounting Position: Any

| R-6                  |      |     |
|----------------------|------|-----|
| Dim                  | Min  | Max |
| A                    | 25.4 | —   |
| B                    | 8.6  | 9.1 |
| C                    | 1.2  | 1.3 |
| D                    | 8.6  | 9.1 |
| All Dimensions in mm |      |     |

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified.

| Characteristic  | Symbol                            | FR 601      | FR 602 | FR 603 | FR 604 | FR 605 | FR 606 | FR 607 | Unit |
|---|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| 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<br>9.5mm Lead Length @ T <sub>A</sub> =75°C               | I <sub>(AV)</sub>                 | 6.0         |        |        |        |        |        |        | A    |
| Peak Forward Surge Current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub>                  | 300         |        |        |        |        |        |        | A    |
| Maximum Instantaneous Forward Voltage @ 6.0A DC   | V <sub>F</sub>                    | 1.3         |        |        |        |        |        |        | V    |
| Maximum DC Reverse Current at Rated Blocking Voltage @ T <sub>A</sub> = 25°C                        | I <sub>R</sub>                    | 10          |        |        |        |        |        |        | μA   |
| Maximum Full Load Reverse Current<br>Full Cycle Average 9.5mm lead length @ T <sub>L</sub> = 55°C   | I <sub>R</sub>                    | 150         |        |        |        |        |        |        | μA   |
| Maximum Reverse Recovery Time (Note 1)  | T <sub>rr</sub>                   | 150         |        |        | 250    | 500    |        |        | ns   |
| Typical Junction Capacitance (Note 2)   | C <sub>J</sub>                    | 200         |        |        |        |        |        |        | pF   |
| Operating and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub> | -65 to +175 |        |        |        |        |        |        | °C   |

- Notes: 1. Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A  
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

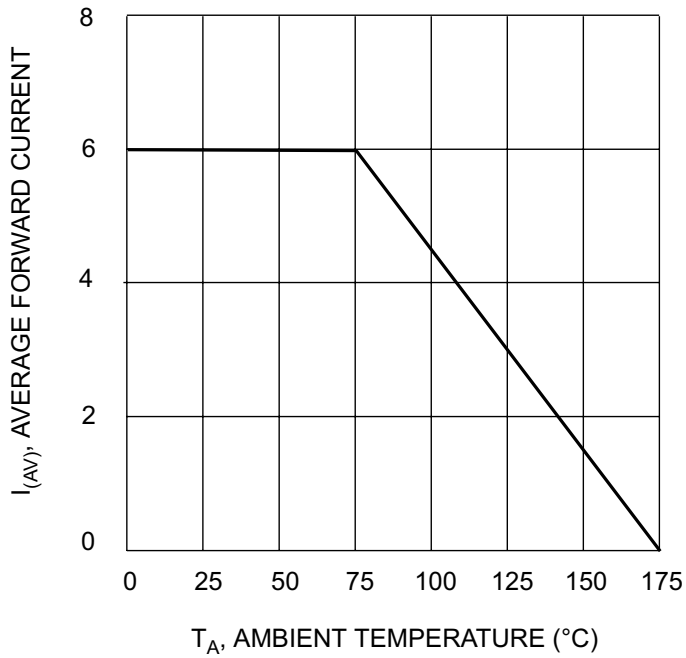


Fig. 1, Typical Forward Current Derating Curve

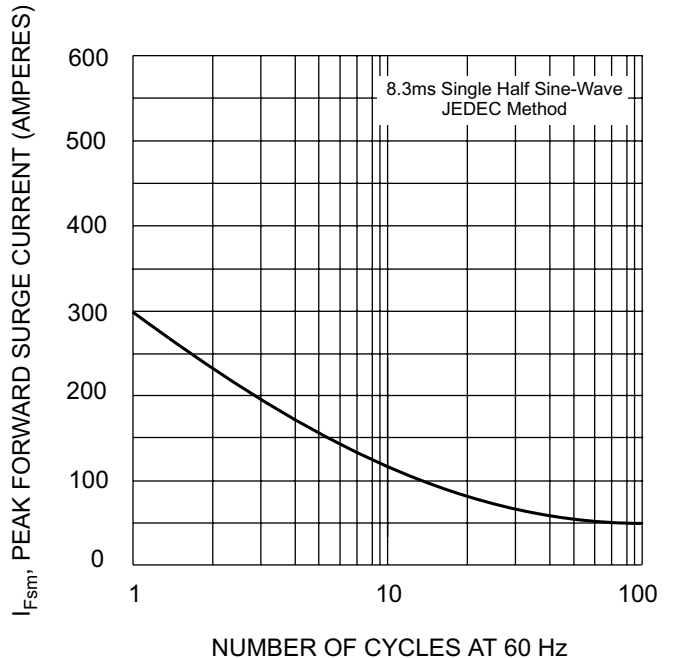


Fig. 2, Max Non-Repetitive Peak Surge Current

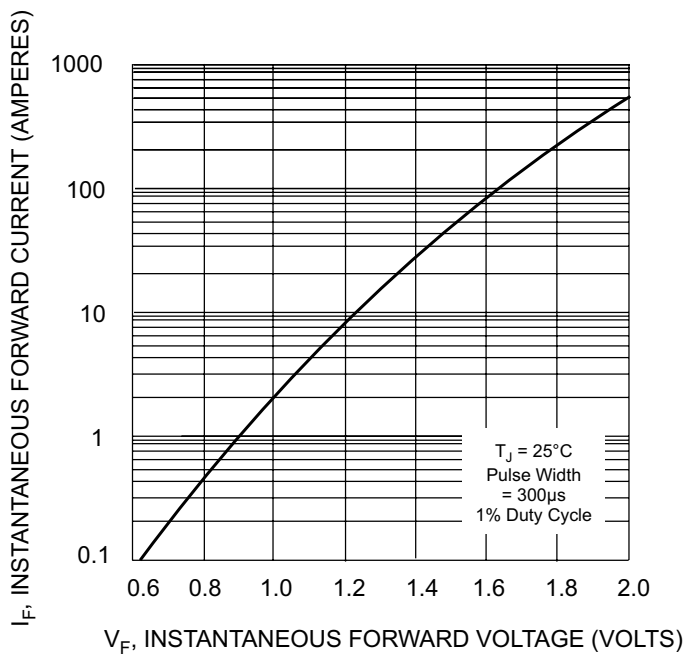


Fig. 3, Typical Instantaneous Forward Characteristics

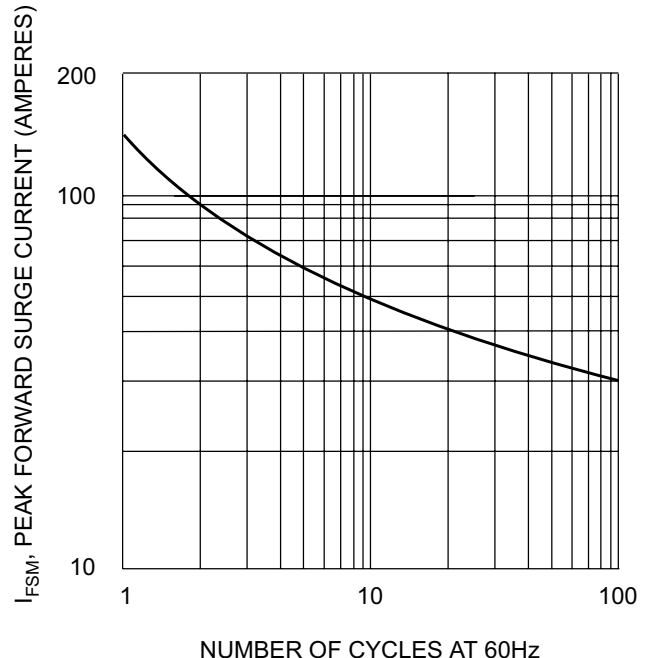


Fig. 4, Maximum Non-Repetitive Surge Current