

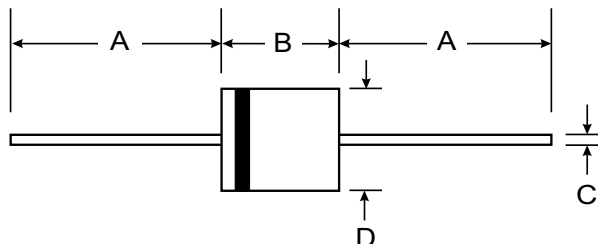
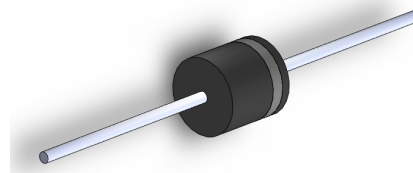
VOLTAGE RANGE: 50 - 1000V
CURRENT: 6.0 A

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 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

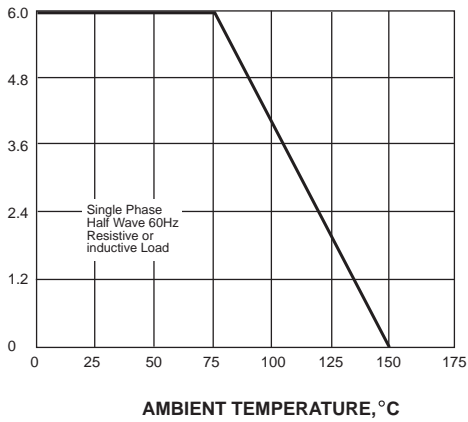
| Characteristic | Symbol | FR 601 | FR 602 | FR 603 | FR 604 | FR 605 | FR 606 | FR 607 | Unit |
|---|-----------------------------------|---------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | VOLTS |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =75°C | I _(AV) | 6.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 300.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 6.0A | V _F | 1.3 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =100°C | I _R | 10.0 200.0 | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t _{rr} | 150 | | | 250 | | 500 | | ns |
| Typical junction capacitance (NOTE 2) | C _J | 150.0 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | R _{θJA} | 10.0 | | | | | | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -65 to +150 | | | | | | | °C |

Note: 1. Reverse recovery condition I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES FR601 THRU FR607

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

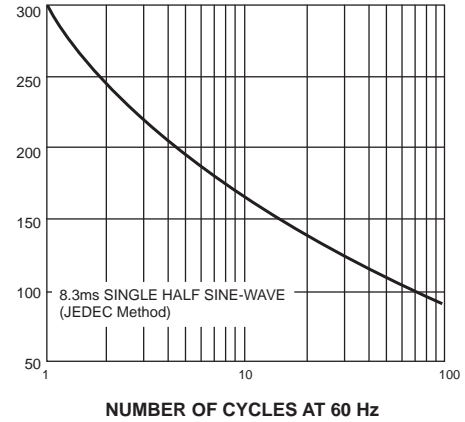
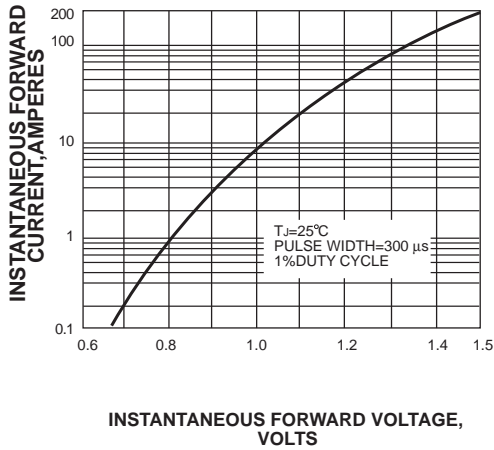


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

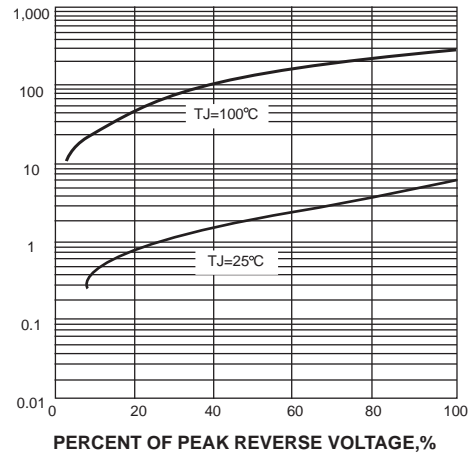
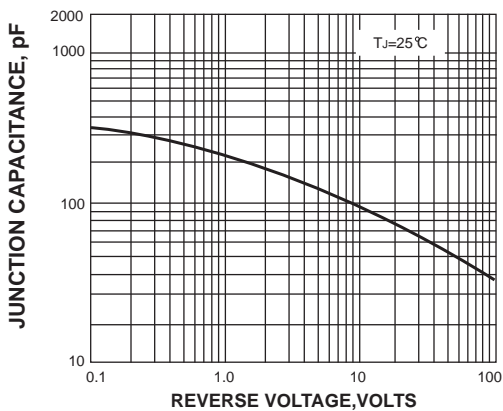


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

