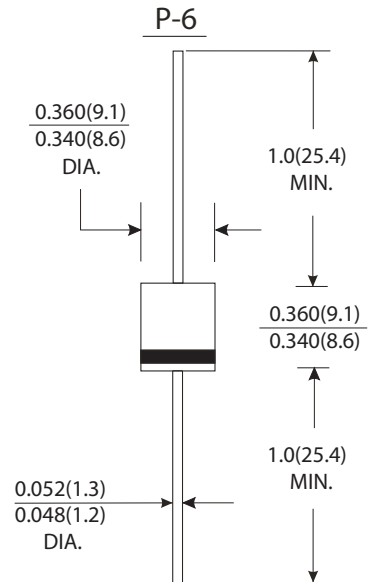


Features

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- Glass passivated junction
- High switching capability

Mechanical Data

- Case : P-6 molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.094 ounce, 2.08 gram



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 by 20%)

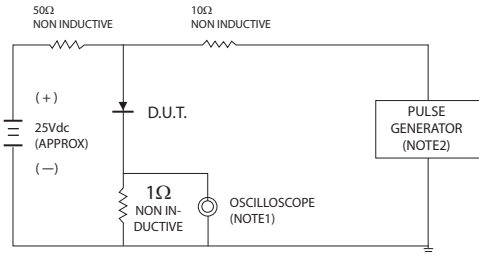
| | Symbols | FR 601G | FR 602G | FR 603G | FR 604G | FR 605G | FR 606G | FR 607G | Units |
|---|------------------------------------|-------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum recurrent peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 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 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 6.0A | V _F | 1.3 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I _R | 10 | | | | | | | μA |
| Maximum full load reverse current full cycle average. 0.375" (9.5mm) lead length at T _L =55 °C | | 150 | | | | | | | |
| Maximum reverse recovery time (Note 1) | T _{rr} | 150 | | | | 250 | 500 | | ns |
| Typical junction capacitance (Note 2) | C _J | 100 | | | | | | | pF |
| Operating junction and storage temperature range | T _J T _{STG} | -65 to +175 | | | | | | | °C |

Notes:

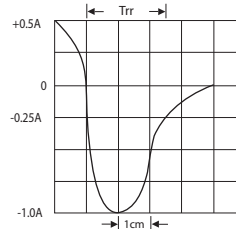
- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES FR601G THRU FR607G

FIG.1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1.Rise Time=7ns max. input impedance=1 megohm 22pF
2.Rise Time=10ns max. source impedance =50 ohms



SET TIME BASE FOR 50/100 ns/cm

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

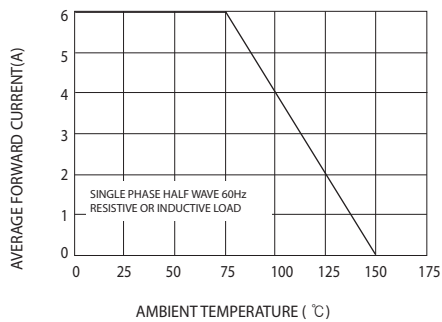


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

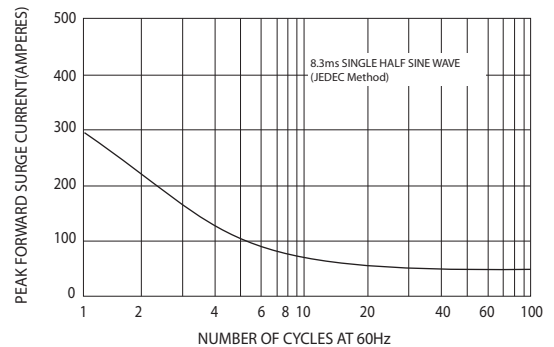


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

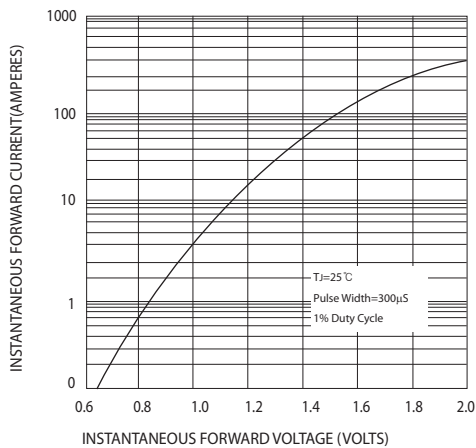


FIG.5-TYPICAL JUNCTION CAPACITANCE

