

FAST RECOVERY GLASS PASSIVATED RECTIFIERS

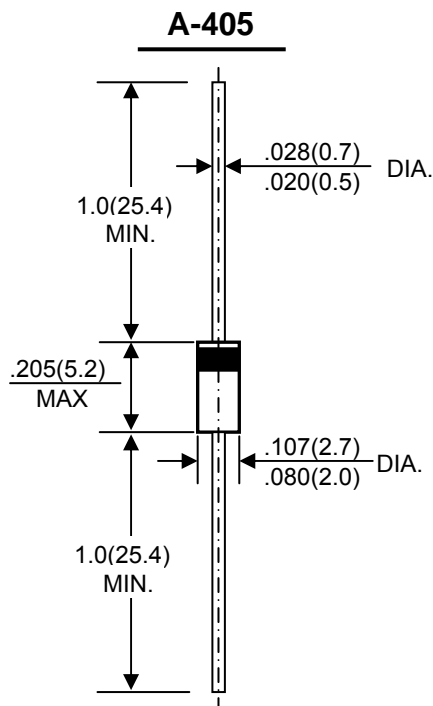
REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 1.5 Amperes

FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case: JEDEC A-405 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.015 ounces , 0.4 grams
- Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

| CHARACTERISTICS | SYMBOL | FR151SG | FR152SG | FR153SG | FR154SG | FR155SG | FR156SG | FR157SG | UNIT |
|---|-------------------|-------------|---------|---------|---------|---------|---------|---------|------|
| 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 @T _A =75 °C | I _(AV) | 1.5 | | | | | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | I _{FSM} | 50 | | | | | | | A |
| Peak Forward Voltage at 1.0A DC | V _F | 1.1 | | | | | | | V |
| Peak Forward Voltage at 1.5A DC | V _F | 1.3 | | | | | | | V |
| Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C | I _R | 5.0 100 | | | | | | | μA |
| Maximum Reverse Recovery Time(Note 1) | T _{rr} | 150 | | | | 250 | 500 | | nS |
| Typical Junction Capacitance (Note2) | C _J | 30 | | | | 20 | | | pF |
| Typical Thermal Resistance (Note3) | R _{θJA} | 25 | | | | | | | °C/W |
| Operating Temperature Range | T _J | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | °C |

NOTES: 1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient.

4.The typical data above is for reference only(典型值仅供参考).

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FIG. 1 – FORWARD CURRENT DERATING CURVE

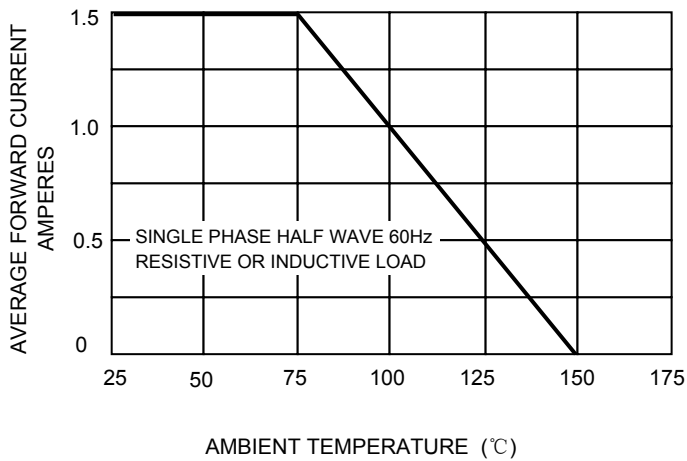


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

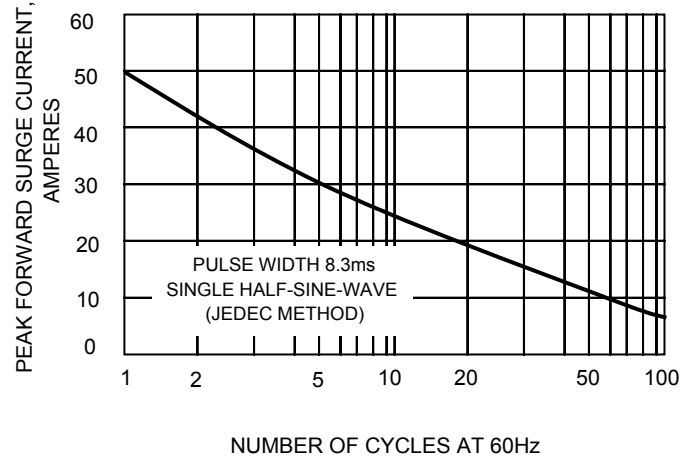


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

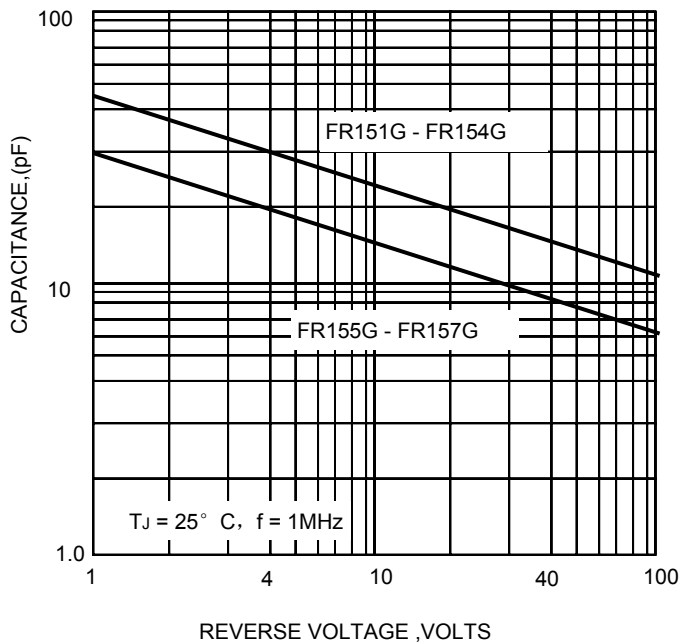
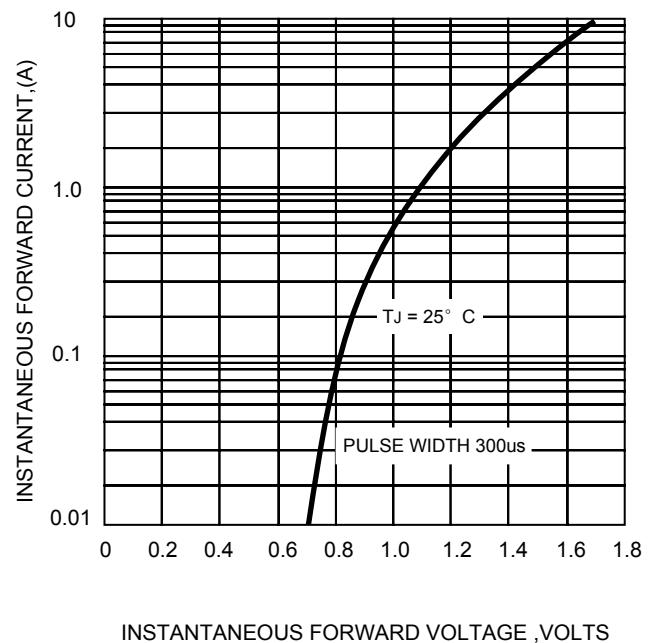


FIG.4-TYPICAL FORWARD CHARACTERISTICS



The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

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