

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600V

CURRENT: 8.0A

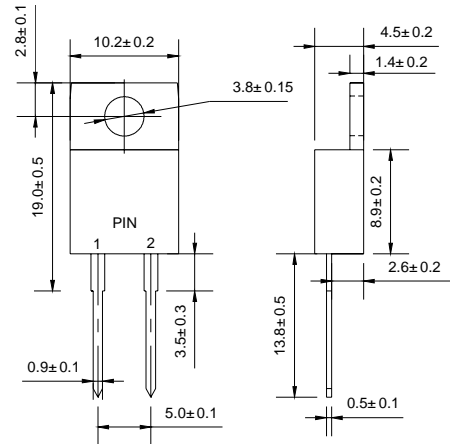
FEATURES

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: JEDEC TO-220AC
- Terminals: solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.069 ounces, 1.96 gram
- Mounting position: Any

TO-220AC



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| | | GF 805 | GF 810 | GF 820 | GF 830 | GF 840 | GF 850 | GF 860 | UNITS |
|---|-----------------|-----------------|--------|--------|--------|--------|--------|--------|---------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 350 | 420 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum average forward rectified current total device (rated V_R), $T_C=100$ | $I_{(AV)}$ | 8.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 125 | | | | | | | A |
| Maximum instantaneous forward voltage (Note1) @ $I_F=8.0A$ | V_F | 0.98 | | 1.3 | | 1.7 | | V | |
| Maximum reverse current at rated DC blocking voltage | I_R | 10 500 | | | | | | | μA |
| Maximum reverse recovery time (Note2) | t_{rr} | 30 | | | | | | | ns |
| Typical thermal resistance junction to case | $R_{\theta JC}$ | 5.0 | | | | | | | /W |
| Operating junction temperature range | T_j | - 55 ---- + 150 | | | | | | | |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | | | | | | | |

NOTE:1. Pulse test: pulse width=300 μs , duty cycle 2.0%

2. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25 A$.

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FIG.1 – TYPICAL FORWARD CHARACTERISTIC

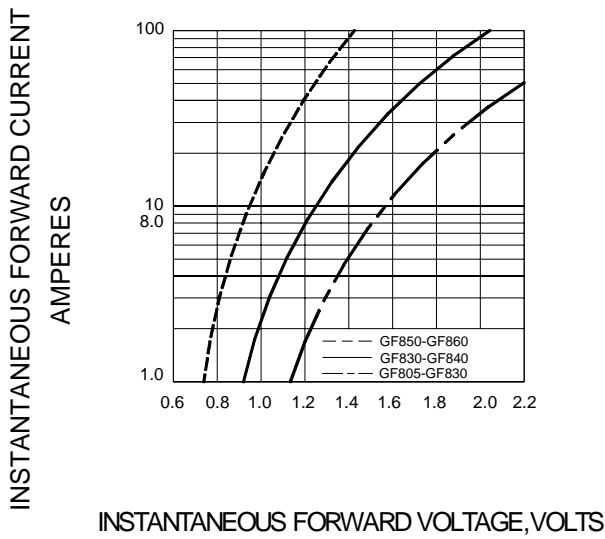


FIG.2 – TYPICAL REVERSE CHARACTERISTICS

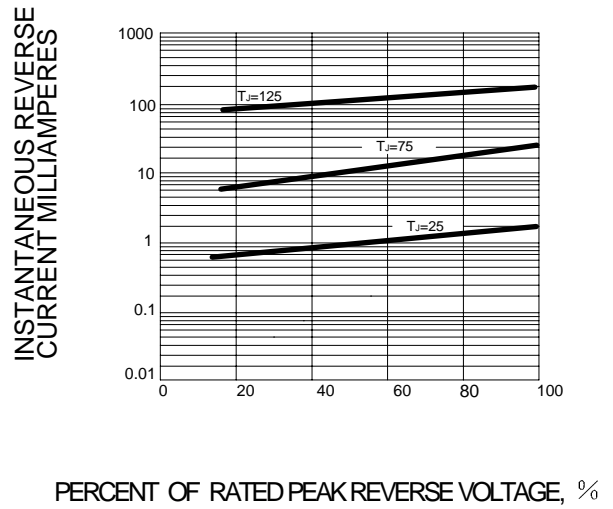


FIG.3 – PEAK FORWARD SURGE CURRENT

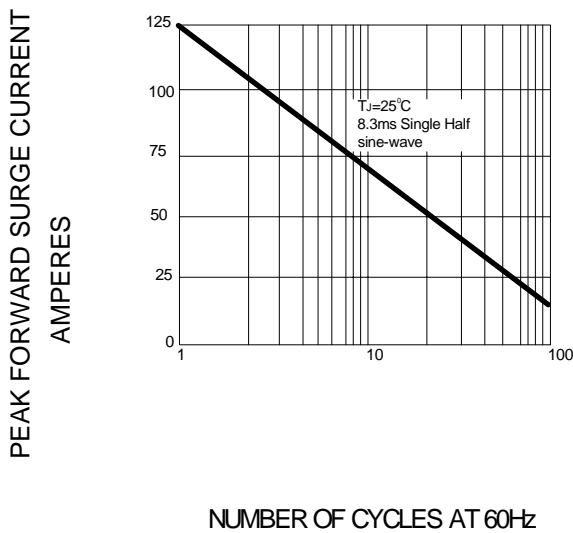


FIG.4 – FORWARD DERATING CURVE

