

6.0A Super Fast Recovery Rectifier Bridge

Reverse Voltage - 300 to 600 V
Forward Current – 6.0A

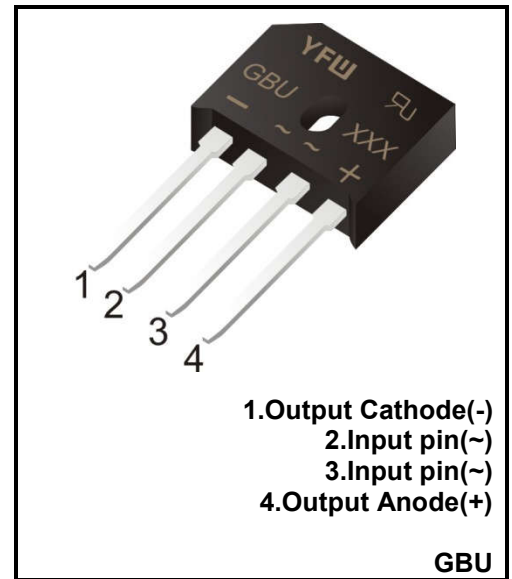


FEATURES

- ◆Surge overload rating-175 amperes peak
- ◆Polarity: As marked on body
- ◆Ideal for printed circuit board
- ◆Plastic material has U/L The flammability classification 94V-0
- ◆Reliable low cost construction utilizing molded plastic technique

MECHANICAL DATA

- ◆Case: GBU
- ◆Terminals: Solderable per MIL-STD-202, Method208
- ◆Approx. Weight: 3.9g /0.138oz



1.Output Cathode(-)
2.Input pin(~)
3.Input pin(~)
4.Output Anode(+)

GBU

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 current derate by 20 %.

| Parameter | Symbols | GBU603SF | GBU606SF | Units |
|---|-----------------|------------|----------|---------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 300 | 600 | V |
| Maximum RMS voltage | V_{RMS} | 200 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 300 | 600 | V |
| Maximum Average Forward $T_C=100^{\circ}C$ Rectified Current at | $I_{(AV)}$ | 6.0 | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 180 | | A |
| Forward Voltage per element @ $I_F=6A$ DC | V_F | 1.45 | 1.65 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_a=25^{\circ}C$ @ $T_a=125^{\circ}C$ | I_R | 10 500 | | μA |
| I^2t Rating for Fusing($3ms \leq t \leq 8.3ms$) | I^2t | 166 | | A^2S |
| Typical Junction Capacitance (Note1) | C_j | 72 | | pF |
| Maximum Reverse Recovery Time (Note2) | T_{rr} | 35 | | nS |
| Typical Thermal Resistance (Note2) | $R_{\theta JC}$ | 1.6 | | $^{\circ}C/W$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +175 | | $^{\circ}C$ |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Device mounted on 150mm*150mm*16mm cu plate heatsink

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

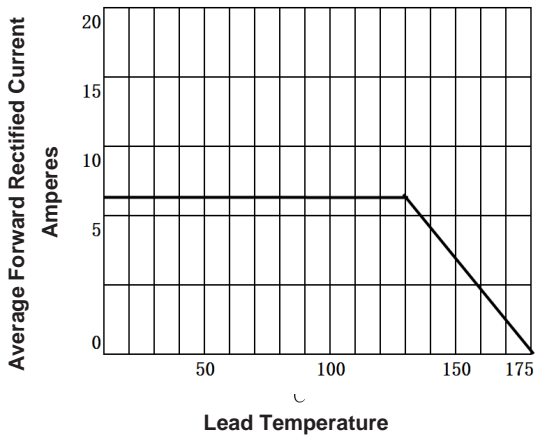


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

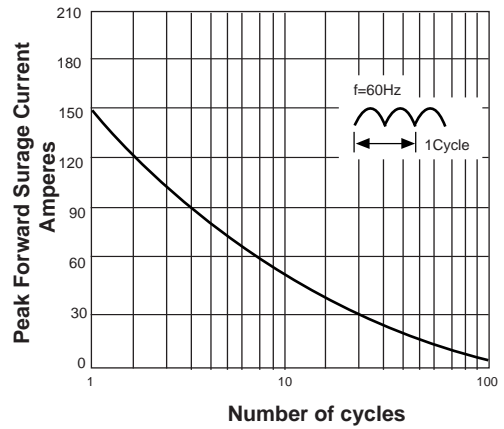


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

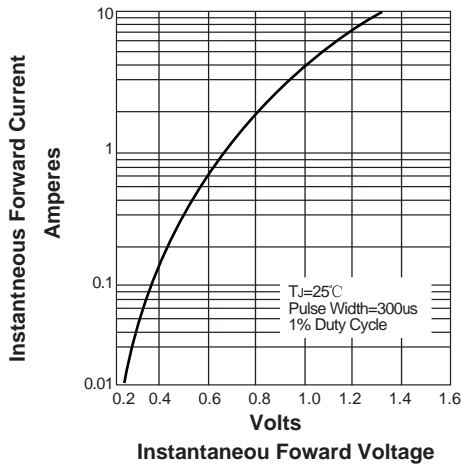
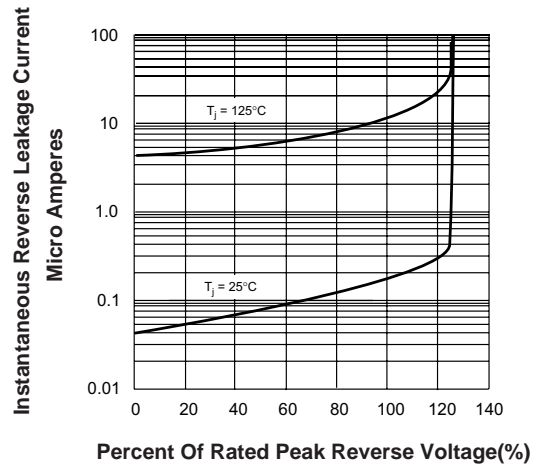
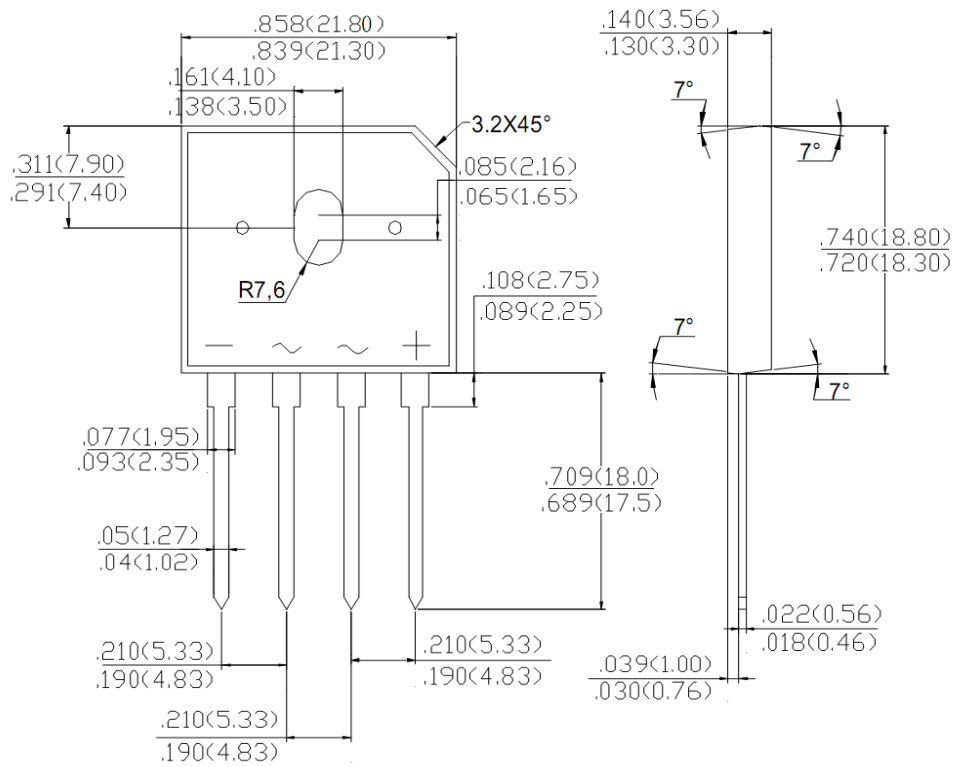


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline

GBU



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| GBU | BOX | 350 | EIA-481-1 |