

GBU401 - GBU407

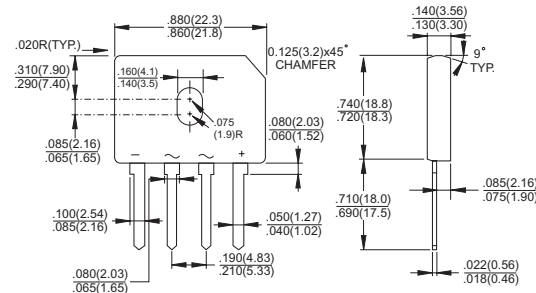
Single Phase 4.0 AMPS. Glass Passivated Bridge Rectifiers

GBU



Features

- ✧ UL Recognized File # E-96005
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ High case dielectric strength of 1500VRMS
- ✧ Surge overload rating to 150 amperes peak
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension



Mechanical Data

- ✧ Case: Molded plastic body
- ✧ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ✧ Weight: 0.3 ounce, 8.0 grams
- ✧ Mounting torque: 5 in. lbs. Max.

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

| Type Number | Symbol | GBU 401 | GBU 402 | GBU 403 | GBU 404 | GBU 405 | GBU 406 | GBU 407 | Units |
|---|------------------------------------|-------------|---------|---------|---------|---------|---------|---------|--------------|
| 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 @ $T_C = 100^\circ C$ | $I_{(AV)}$ | 4.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 150 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 2.0A @ 4.0A | V_F | 1.0 1.1 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$ | I_R | 5.0 500 | | | | | | | uA uA |
| Typical Junction Capacitance (Note 3) | C_j | 100 | | | | 45 | | | pF |
| Typical Thermal Resistance (Note 1) (Note 2) | $R_{\theta JA}$ $R_{\theta JC}$ | 20 4.0 | | | | | | | $^\circ C/W$ |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ C$ |

Notes: 1. Mounted on P.C.B. with 0.5" x 0.5" (12mm x 12mm) Copper Pads and 0.375" 9.5mm) Lead Length. 2. Mounted on Al. Plate of 2" x 3" x 0.25" Al-Plate Heatsink. 3. Measured at 1.0MHZ and Applied Reverse Voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES (GBU401 THRU GBU407)

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

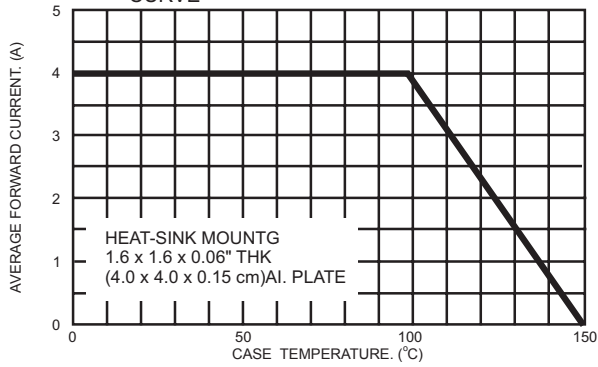


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

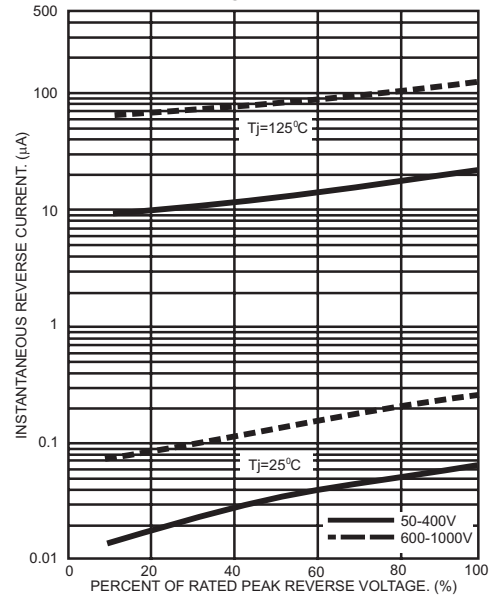


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

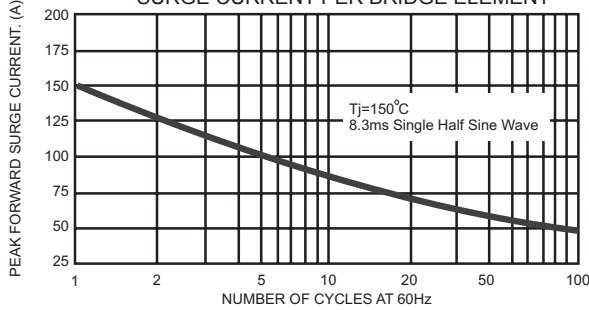


FIG.4- TYPICAL JUNCTION CAPACITANCE

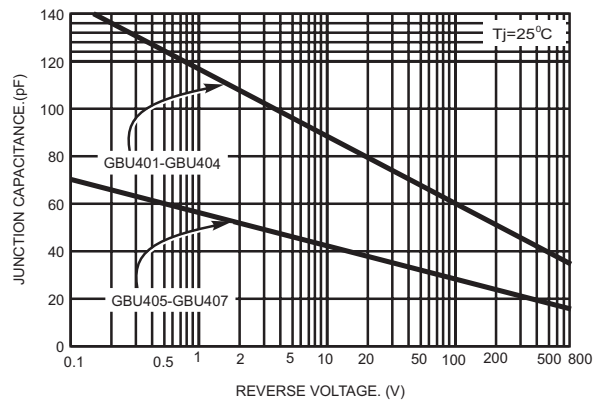


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

