



# GBU6005 THRU GBU610

PINGWEI ENTERPRISE

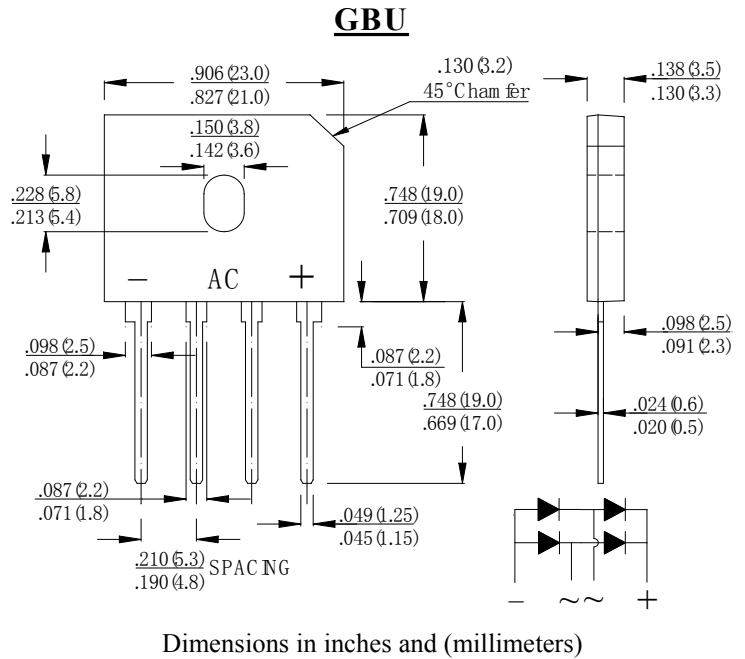
## SINGLE PHASE 6.0 AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

### FEATURE

- . UL Listed Under Recognized Component Index, File Number E338195
- . Glass passivated chip junctions
- . High case dielectric strength
- . Low Reverse Leakage Current
- . High surge current capability
- . Ideal for Printed Circuit Board Applications

### MECHANICAL DATA

- . Case: GBU
- . Case Material: Molded Plastic.  
UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free.  
Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Molded on Body
- . Mounting: Through Hole for #6 Screw
- . Mounting Torque: 5.0 in-lbs Maximum
- . Weight: 3.8 grams



### 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 current by 20%

| Type Number  | SYM BOL     | GBU 6005    | GBU 601 | GBU 602 | GBU 604 | GBU 606 | GBU 608 | GBU 610 | 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 (with heatsink Note2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink) | $I_{F(AV)}$ | 6.0         |         |         |         |         |         | 2.6     |       | A                         |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)              | $I_{FSM}$   | 175         |         |         |         |         |         |         |       | A                         |
| Maximum Forward Voltage @ 6.0A DC Drop per element @ 3.0A DC   | $V_F$       | 1.1         |         |         |         |         |         | 1.0     |       | V                         |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$   | $I_R$       | 5.0         |         |         |         |         |         | 500.0   |       | $\mu\text{A}$             |
| $I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )  | $I^2t$      | 127         |         |         |         |         |         |         |       | $\text{A}^2\text{Sec}$    |
| Typical Junction Capacitance (Note 1)  | $C_J$       | 55          |         |         |         |         |         |         |       | pF                        |
| Typical Thermal Resistance (Note 2)  | $R_{(JC)}$  | 2.2         |         |         |         |         |         |         |       | $^\circ\text{C}/\text{W}$ |
| Storage Temperature  | $T_{STG}$   | -55 to +150 |         |         |         |         |         |         |       | $^\circ\text{C}$          |
| Operating Junction Temperature   | $T_J$       | -55 to +150 |         |         |         |         |         |         |       | $^\circ\text{C}$          |

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

**RATING AND CHARACTERISTIC CURVES (GBU6005 THRU GBU610)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

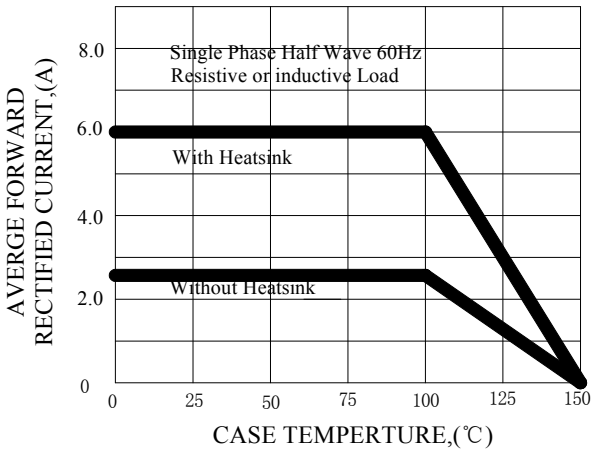


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

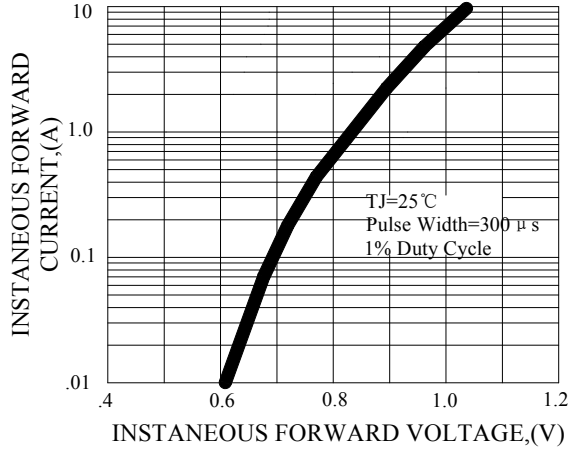


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

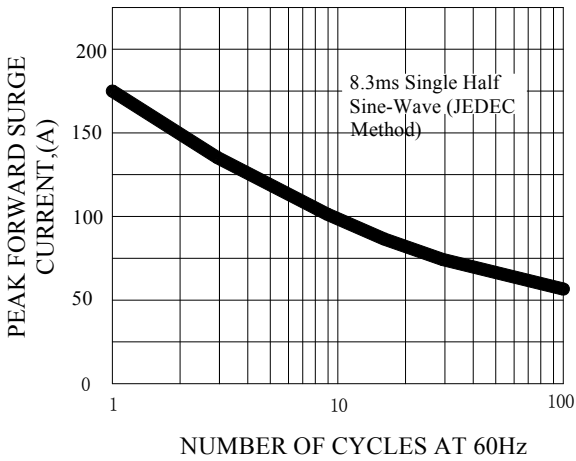


FIG.4-TYPICAL JUNCTION CAPACITANCE

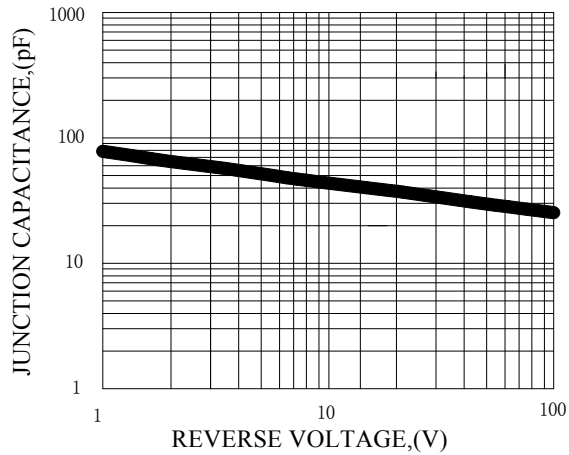


FIG.5-TYPICAL REVERSE CHARACTERISTICS

