



GBL005 THRU GBL10

Single Phase 4.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range
50 to 1000 Volts
Current
4.0 Amperes

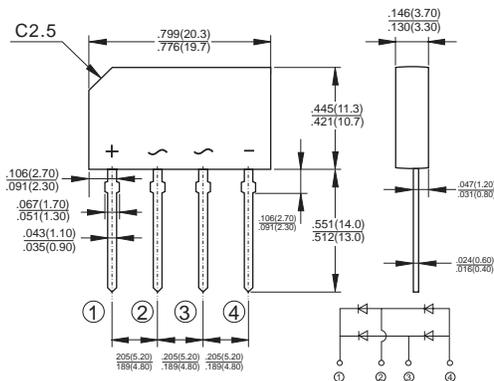
Features

- ✧ Glass passivated chip junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Typical IR less than 0.1 μ A
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths.

Mechanical Data

- ✧ Case: Molded plastic body.
- ✧ Terminals: Plated leads solderable per MIL-STD-750, Method 2026.
- ✧ Weight: 0.071 ounce, 2.0 grams
- ✧ Mounting position: Any

GBL



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 | GBL 005 | GBL 01 | GBL 02 | GBL 04 | GBL 06 | GBL 08 | GBL 10 | 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 @ $T_C = 50^\circ\text{C}$ (Note 1) @ $T_A = 40^\circ\text{C}$ (Note 2) | $I_{(AV)}$ | | | | | 4.0 | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) $T_J = 150^\circ\text{C}$ | I_{FSM} | | | | | 150 | | | A |
| Maximum Instantaneous Forward Voltage @ 4.0A | V_F | | | | | 1.00 | | | V |
| Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_R | | | | | 5.0 | | | μA μA |
| Typical Thermal Resistance Per Leg (Note 1) (Note 2) | $R_{\theta JA}$ $R_{\theta JL}$ | | | | | 22 | | | $^\circ\text{C}/\text{W}$ |
| Typical Junction Capacitance Per Leg at 4.0V, 1MHz | C_j | 95 | | | 40 | | | | pF |
| Operating Temperature Range | T_J | | | | | -55 to +150 | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | | | | | -55 to +150 | | | $^\circ\text{C}$ |

Notes 1. Unit Mounted on 2" x 3" x 0.25" Al-Plate.

2. Units Mounted on P.C.B. 0.5 x 0.5 " (12x12mm) Copper Pads, 0.375" (9.5mm) Lead Length.

RATINGS AND CHARACTERISTIC CURVES (GBL005 THRU GBL10)

FIG.1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

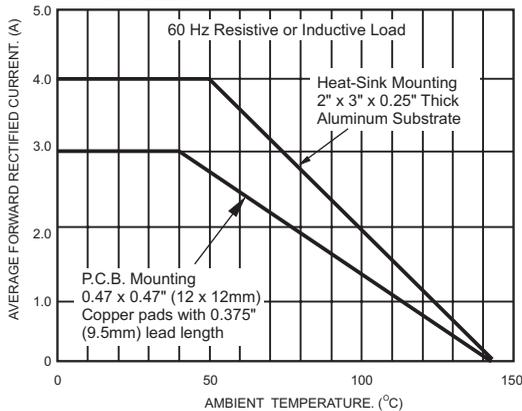


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

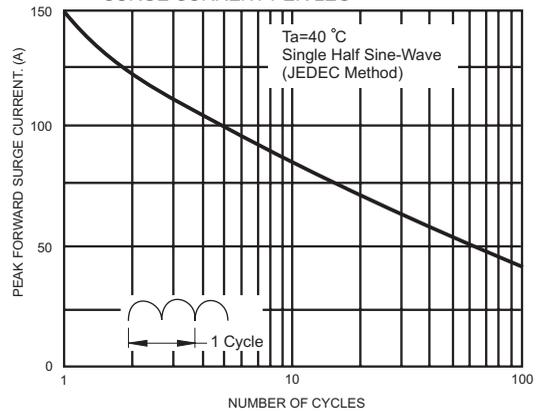


FIG.3- TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

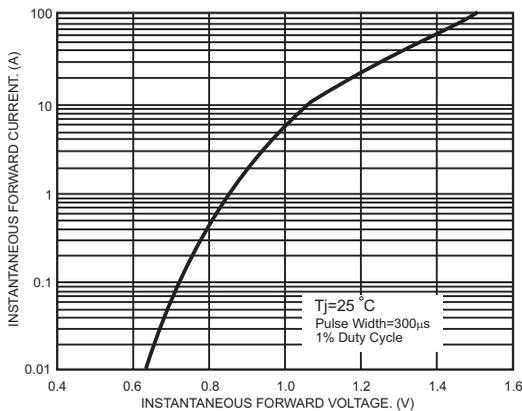


FIG.4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

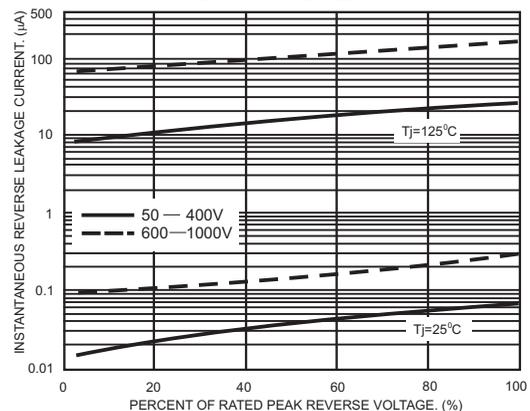


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

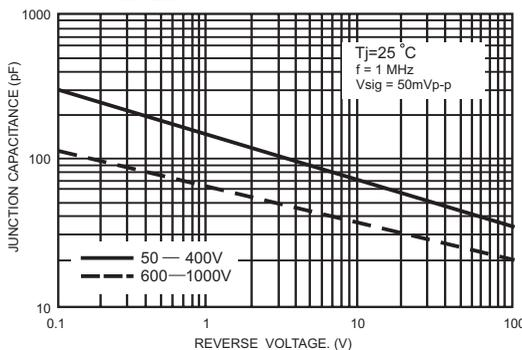


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

