



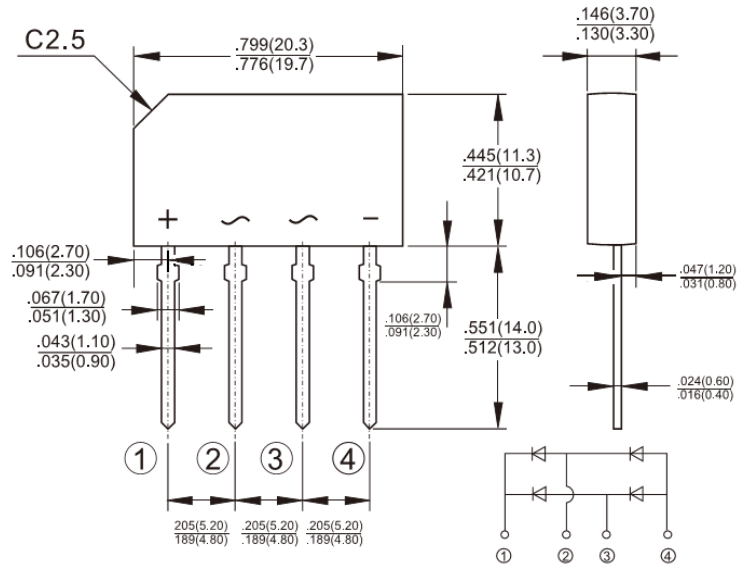
# GBLA005 - GBLA10

Single Phase 4.0AMPS. Glass Passivated Bridge Rectifiers

## GBL

### Features

- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260°C/ 10 seconds at 5lbs., (2.3kg) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



### Mechanical Data

- ✧ Case: Molded plastic body
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208
- ✧ Weight: 2.0 grams
- ✧ Mounting position: Any

### Dimensions in inches and (millimeters)

#### Marking Diagram



- PN = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

### 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                             | GBLA 005      | GBLA 01 | GBLA 02 | GBLA 04 | GBLA 06 | GBLA 08 | GBLA 10 | Unit             |
|--|------------------------------------|---------------|---------|---------|---------|---------|---------|---------|------------------|
| Maximum Repetitive 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<br>@ $T_C=50^\circ C$<br>@ $T_A=40^\circ C$                | $I_{F(AV)}$                        | 4<br>3        |         |         |         |         |         |         | A                |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)   | $I_{FSM}$                          | 120           |         |         |         |         |         |         | A                |
| Rating for fusing (t<8.3ms)  | $I^2T$                             | 59.76         |         |         |         |         |         |         | A <sup>2</sup> S |
| Maximum Instantaneous Forward Voltage (Note 1)<br>@ 4 A  | $V_F$                              | 1.0           |         |         |         |         |         |         | V                |
| Maximum DC Reverse Current<br>at Rated DC Block Voltage<br>@ $T_A=25^\circ C$<br>@ $T_A=125^\circ C$ | $I_R$                              | 5<br>500      |         |         |         |         |         |         | uA               |
| Typical Thermal Resistance   | $R_{\theta JA}$<br>$R_{\theta JL}$ | 47<br>10      |         |         |         |         |         |         | °C/W             |
| Operating Temperature Range  | $T_J$                              | - 55 to + 150 |         |         |         |         |         |         | °C               |
| Storage Temperature Range  | $T_{STG}$                          | - 55 to + 150 |         |         |         |         |         |         | °C               |

Notes 1: Pulse Test with PW=300 usec, 1% Duty Cycle

## RATINGS AND CHARACTERISTIC CURVES (GBLA005 THRU GBLA10)

FIG. 1 FORWARD CURRENT DERATING CURVE

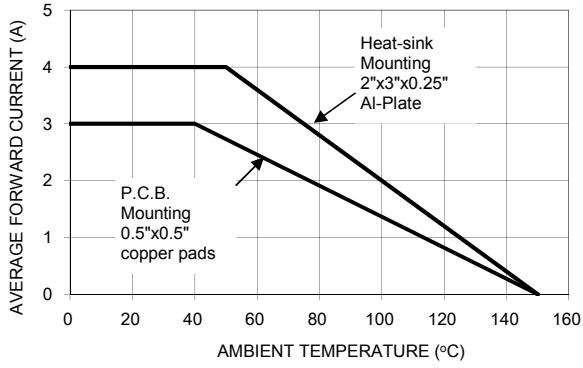


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

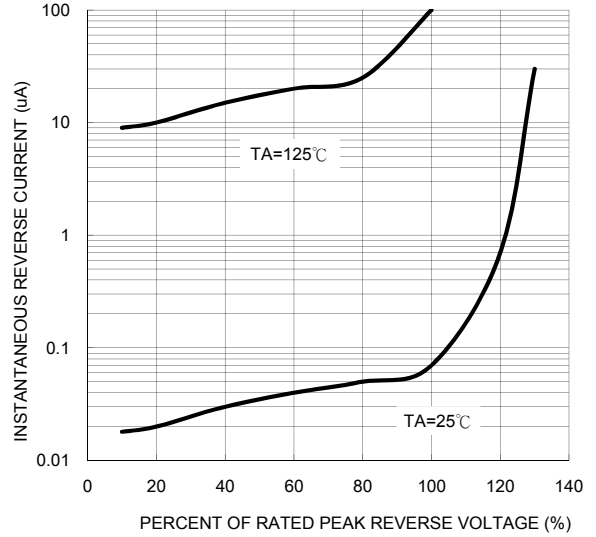


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

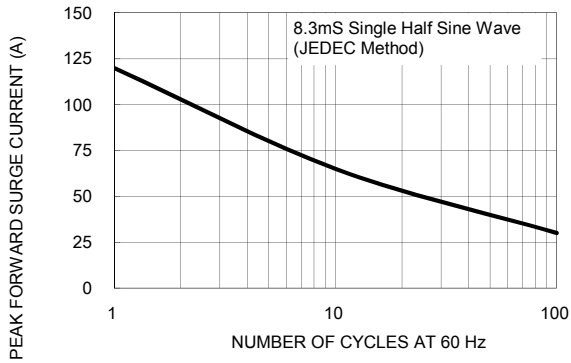


FIG. 4 TYPICAL JUNCTION CAPACITANCE

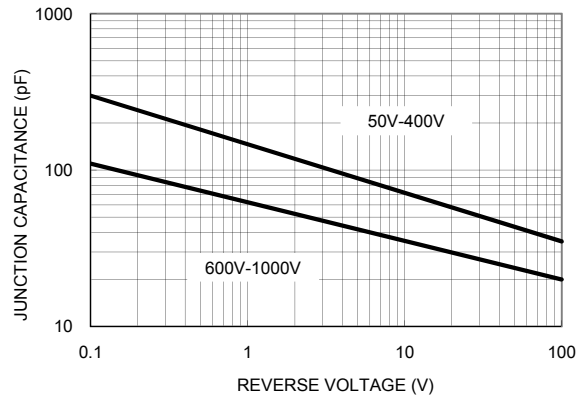


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

