



# GBL2A thru GBL2M

Glass Passivated Single-Phase Bridge Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

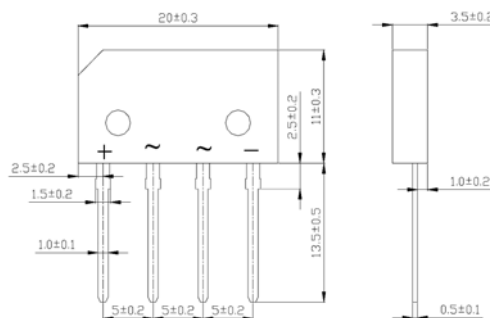
## Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High surge current capability



## Mechanical Data

- ◆ Case: GBL(2S) Molded plastic body
- ◆ Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375 (9.5mm) lead length,  
5lbs.(2.3kg) tension
- ◆ Mounting Position: Any
- ◆ Weight: 0.074 oz., 2.1 g



Package outline dimensions in millimeters

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

| Parameter                                                                                                         | Symbols                          | GBL2A        | GBL2B | GBL2D | GBL2G | GBL2J | GBL2K | GBL2M | Units              |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|--------------------|
| Maximum repetitive peak reverse voltage                                                                           | $V_{RRM}$                        | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | Volts              |
| Maximum RMS voltage                                                                                               | $V_{RMS}$                        | 35           | 70    | 140   | 280   | 420   | 560   | 700   | Volts              |
| Maximum DC blocking voltage                                                                                       | $V_{DC}$                         | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | Volts              |
| Maximum average forward rectified output current at $T_A=50^\circ\text{C}$                                        | $I_{F(AV)}$                      | 2.0          |       |       |       |       |       |       | Amps               |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)                 | $I_{FSM}$                        | 65.0         |       |       |       |       |       |       | Amps               |
| Rating for fusing ( $t < 8.3\text{ms}$ )                                                                          | $I^2t$                           | 17           |       |       |       |       |       |       | A <sup>2</sup> sec |
| Maximum instantaneous forward voltage drop per leg at 1.0A                                                        | $V_F$                            | 1.0          |       |       |       |       |       |       | Volt               |
| Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ | $I_R$                            | 5.0<br>250.0 |       |       |       |       |       |       | $\mu\text{A}$      |
| Typical junction capacitance per leg at 4.0V, 1MHz                                                                | $C_j$                            | 25           |       |       |       |       |       |       | pF                 |
| Typical thermal resistance per leg (Note 1)                                                                       | $R_{JA}^{(2)}$<br>$R_{JC}^{(1)}$ | 32<br>13     |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                                  | $T_J, T_{STG}$                   | -55 to +150  |       |       |       |       |       |       | $^\circ\text{C}$   |

**Notes:** 1. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B with 0.47" x 0.47" (12mm x 12mm) Copper Pads.

## RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

FIG.1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

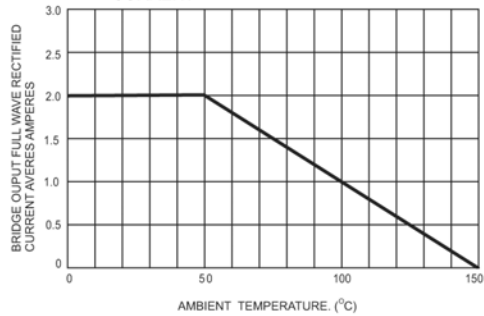


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

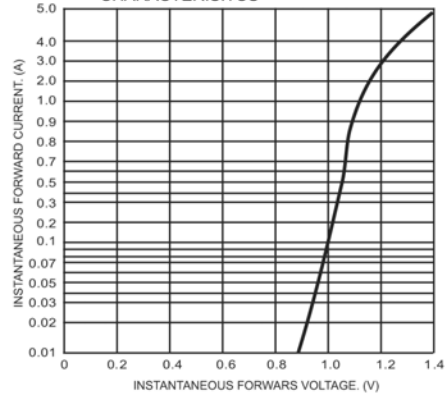


FIG.3- TYPICAL REAK REVERSE VOLTAGE CHARACTERISTICS

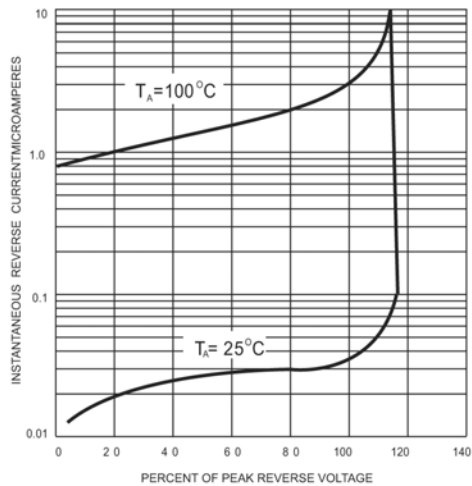


FIG.4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

