

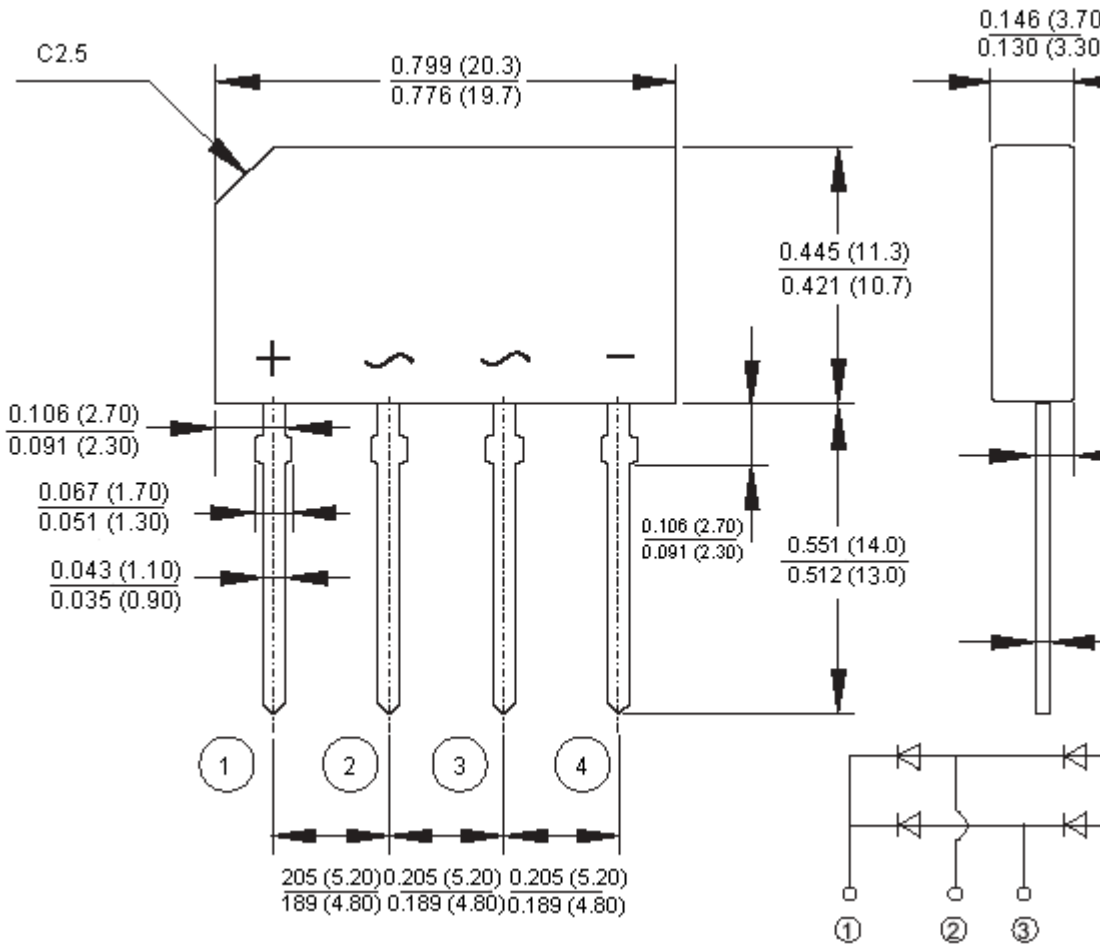
# GBL - Series



## Features:

- Glass passivated chip junction.
- Ideal for printed circuit board.
- High case dielectric strength.
- Plastic material has underwriters laboratory.
- Flammability classification.
- Typical  $I_R$  less than  $0.1\mu A$ .
- High surge current capability.
- High temperature soldering guaranteed:  $260^\circ C/10$  seconds/ $0.375$  inch, ( $9.5mm$ ) lead lengths.

## GBL



Dimensions : Inches (Millimeters)

## Mechanical Data

|                   |   |
|-------------------|---|
| Case              | : Moulded plastic body.   |
| Terminals         | : Pure tin plated, lead free leads solderable per MIL-STD-750, Method 2026. |
| Weight            | : 0.071 ounce, 2.0 grams  |
| Mounting position | : Any   |

# GBL - Series

## Maximum Ratings and Electrical Characteristics

Rating 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  | Symbol                             | GBL 01      | GBL 02 | GBL 04 | GBL 06 | GBL 08 | GBL 10 | Units              |
|--|------------------------------------|-------------|--------|--------|--------|--------|--------|--------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$                          | 100         | 200    | 400    | 600    | 800    | 1000   | V                  |
| Maximum RMS Voltage  | $V_{RMS}$                          | 70          | 140    | 280    | 420    | 560    | 700    |                    |
| Maximum DC Blocking Voltage  | $V_{DC}$                           | 100         | 200    | 400    | 600    | 800    | 1000   |                    |
| Maximum Average Forward Rectified Current<br>at $T_C = 50^\circ\text{C}$ (Note 1)<br>at $T_A = 40^\circ\text{C}$ (Note 2)    | $I_{(AV)}$                         | 4.0<br>3.0  |        |        |        |        |        | 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         |        |        |        |        |        |                    |
| Rating for fusing ( $t < 8.3\text{ms}$ )   | $I^2t$                             | 9.3         |        |        |        |        |        | A <sup>2</sup> sec |
| Maximum Instantaneous Forward Voltage<br>at 2.0A<br>at 4.0A  | $V_F$                              | 1.0<br>1.1  |        |        |        |        |        | v                  |
| Maximum DC Reverse Current<br>at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage<br>at $T_A = 125^\circ\text{C}$       | $I_R$                              | 5.0<br>500  |        |        |        |        |        | uA<br>uA           |
| Typical Junction Capacitance Per Leg at 4.0V, 1MHz   | $C_J$                              | 95          |        |        | 40     |        |        | pF                 |
| Typical Thermal Resistance Per Leg (Note 1)<br>(Note 2)  | $R_{\theta JA}$<br>$R_{\theta JL}$ | 22<br>3.5   |        |        |        |        |        | °C/W               |
| Operating Temperature Range  | $T_J$                              | -55 to +150 |        |        |        |        |        | °C                 |
| Storage Temperature Range  | $T_{STG}$                          |             |        |        |        |        |        |                    |

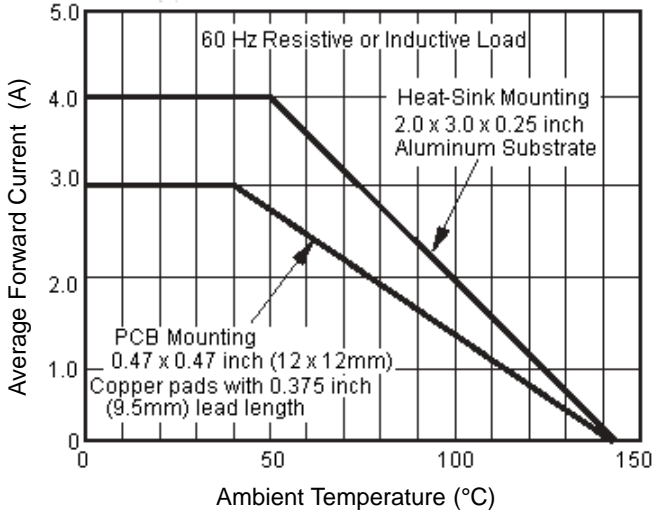
Notes 1. Unit Mounted on 2 x 3 x 0.25 inches Al. plate.

2. Units Mounted on PCB 0.5 x 0.5 inch (12 x 12mm) Copper Pads, 0.375 inch (9.5mm) Lead Length.

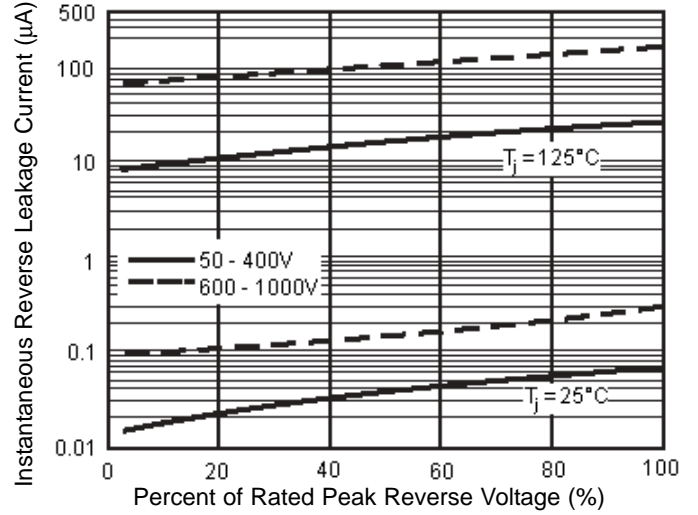
# GBL - Series

## Ratings and Characteristic Curves (GBL01, GBL02, GBL04, GBL06, GBL08 and GBL10)

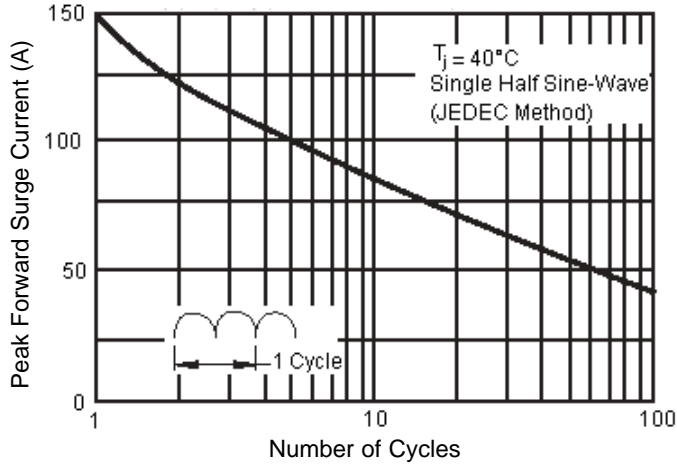
**Derating Curve for Output Rectified Current**



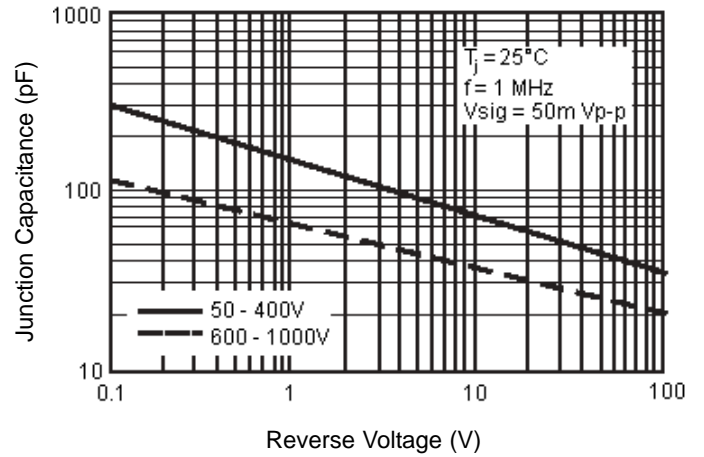
**Typical Reverse Characteristics**



**Maximum Non-Repetitive Peak Forward Surge Current Per Leg**

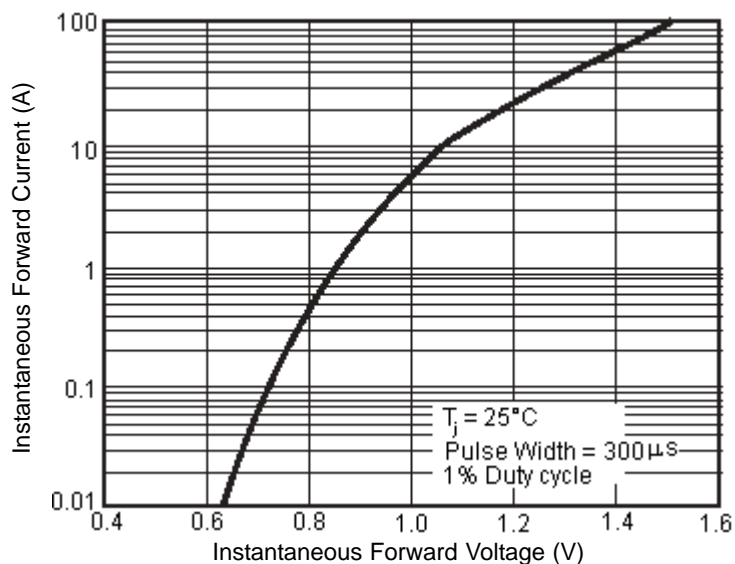


**Typical Junction Capacitance Per Leg**



# GBL - Series

Typical Forward Voltage Characteristics Per Leg



## Part Number Table

| Description                 | Part Number |
|-----------------------------|-------------|
| Bridge Rectifier, 4A, 100V  | GBL01       |
| Bridge Rectifier, 4A, 200V  | GBL02       |
| Bridge Rectifier, 4A, 400V  | GBL04       |
| Bridge Rectifier, 4A, 600V  | GBL06       |
| Bridge Rectifier, 4A, 800V  | GBL08       |
| Bridge Rectifier, 4A, 1000V | GBL10       |