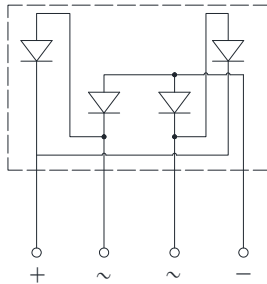
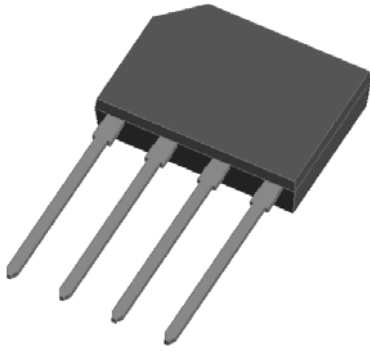


## Low VF Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Low VF
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

### Mechanical Data

- **Package:** GBP  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                  |                                          | SYMBOL           | UNIT             | GBPL808    |
|--------------------------------------------------------------------------------------------|------------------------------------------|------------------|------------------|------------|
| Device marking code                                                                        |                                          |                  |                  | GBPL808    |
| Maximum Repetitive Peak Reverse Voltage                                                    |                                          | VRRM             | V                | 800        |
| Maximum RMS Voltage                                                                        |                                          | VRMS             | V                | 560        |
| Maximum DC blocking Voltage                                                                |                                          | VDC              | V                | 800        |
| Average rectified output current @60Hz sine wave, R-load                                   | With heatsink<br>T <sub>c</sub> =130°C   | I <sub>O</sub>   | A                | 8.0        |
|                                                                                            | Without heatsink<br>T <sub>a</sub> =25°C |                  |                  | 1.8        |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C |                                          | I <sub>FSM</sub> | A                | 170        |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C    |                                          |                  |                  | 340        |
| Current squared time @1ms≤t<8.3ms T <sub>j</sub> =25°C, Rating of per diode                |                                          | I <sup>2</sup> t | A <sup>2</sup> s | 120        |
| Dielectric strength @ terminals to case, AC 1 minute                                       |                                          | V <sub>dis</sub> | KV               | 2          |
| Storage temperature                                                                        |                                          | T <sub>stg</sub> | °C               | -55 ~ +150 |
| Junction temperature                                                                       |                                          | T <sub>j</sub>   | °C               | -55 ~ +150 |



# GBPL808

## ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                         | SYMBOL         | UNIT | TEST CONDITIONS                                           | GBPL808 |
|-------------------------------------------------------------------|----------------|------|-----------------------------------------------------------|---------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub> | V    | I <sub>FM</sub> =4.0A                                     | 0.92    |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>R</sub> | μA   | T <sub>j</sub> =25°C                                      | 5       |
|                                                                   |                |      | T <sub>j</sub> =125°C                                     | 100     |
| Typical junction capacitance                                      | C <sub>j</sub> | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 55      |

## ■Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER          |                                                | SYMBOL            | UNIT | GBPL808 |
|--------------------|------------------------------------------------|-------------------|------|---------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R <sub>θJ-A</sub> | °C/W | 45.0    |
|                    | Between junction and case, With heatsink       | R <sub>θJ-C</sub> |      | 1.5     |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g)  | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| GBPL808       | B1           | Approximate 1.4 | 35                   | 2100                    | 4200                       | TUBE          |

## ■ Characteristics (Typical)

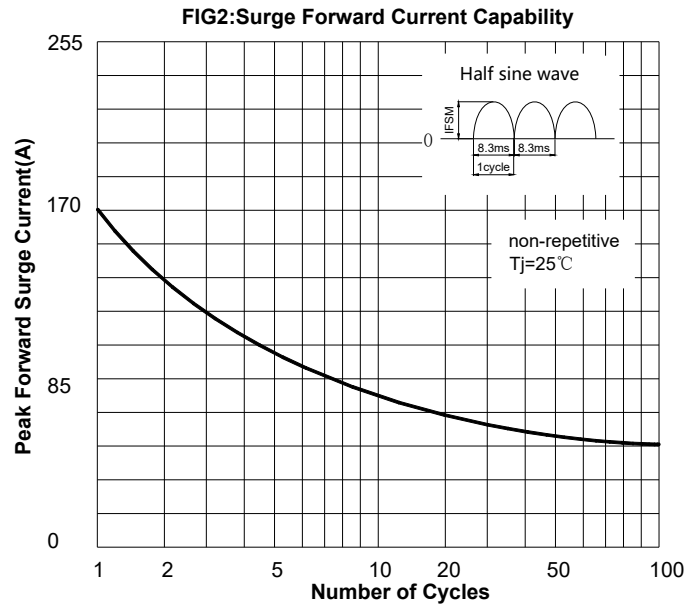
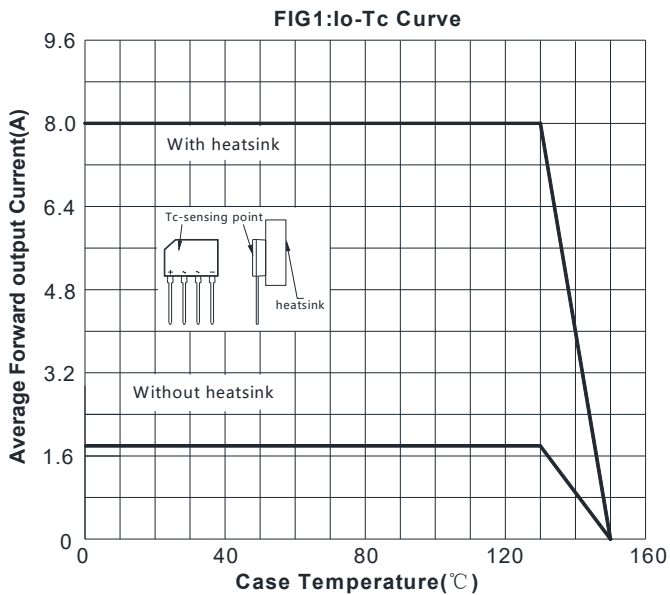


FIG3: Typical Forward Voltage

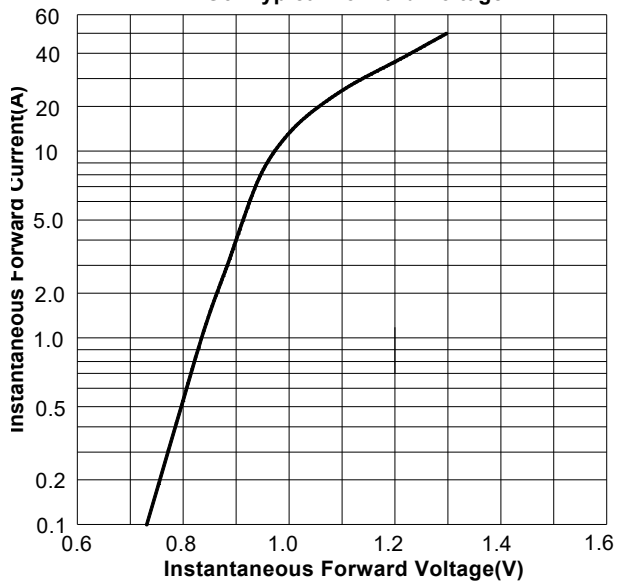
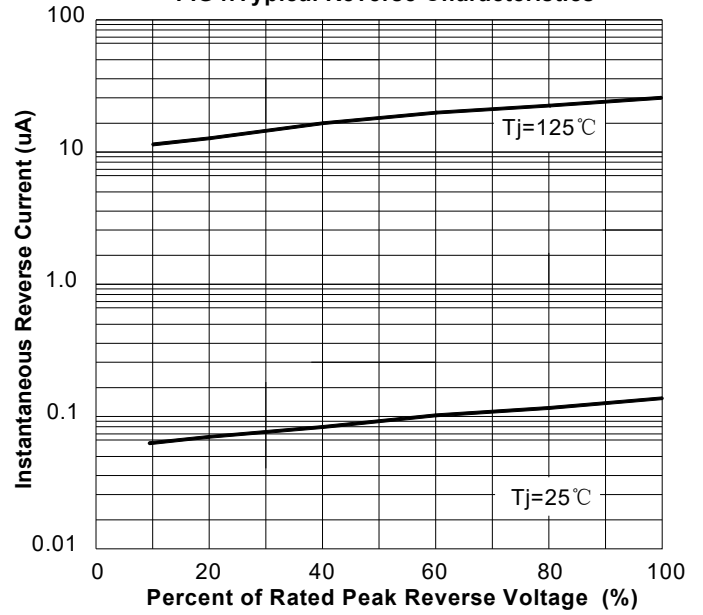
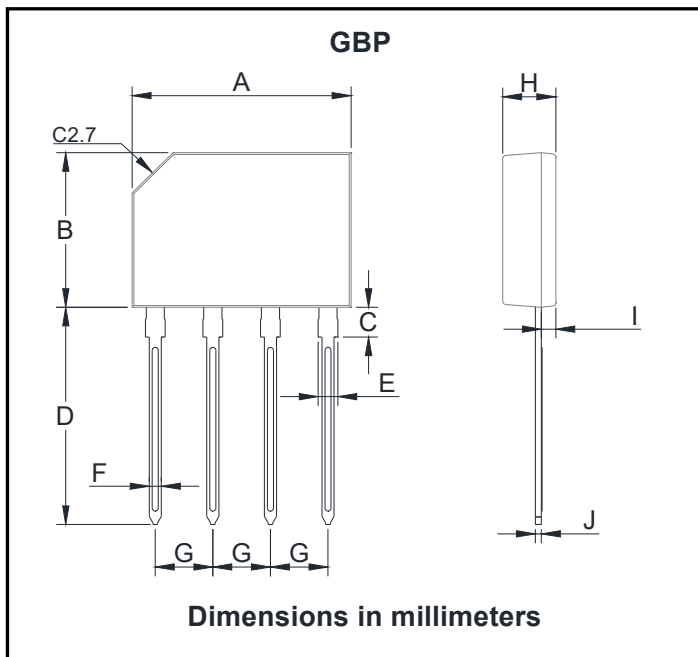


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



| GBPL808 |       |       |
|---------|-------|-------|
| Dim     | Min   | Max   |
| A       | 14.25 | 14.75 |
| B       | 10.10 | 10.60 |
| C       | 1.80  | 2.20  |
| D       | 14.25 | 14.73 |
| E       | 1.22  | 1.42  |
| F       | 0.76  | 0.86  |
| G       | 3.70  | 3.90  |
| H       | 3.35  | 3.65  |
| I       | 0.80  | 1.10  |
| J       | 0.35  | 0.55  |



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