



# DATA SHEET

## GBP200~GBP2010

**IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**  
**VOLTAGE - 50 to 1000 Volts CURRENT - 2.0 Amperes**

**GBP**

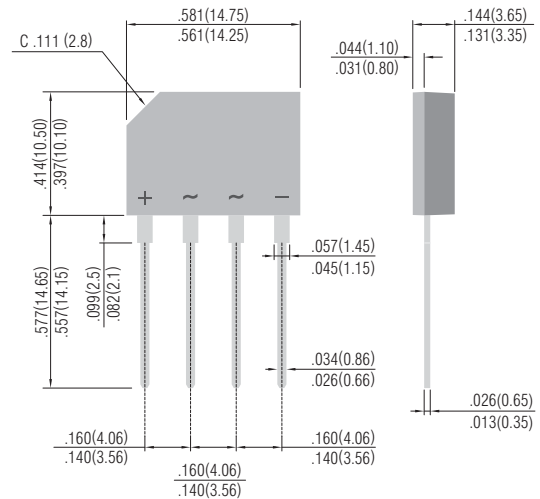
Unit: inch ( mm )

### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating : 60 Amperes peak

### MECHANICAL DATA

Terminals: Leads solderable per MIL-STD-202, Method 208  
Mounting position: Any  
Weight: 0.06 ounce, 1.7 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.  
For Capacitive load derate current by 20%.

|  | GBP200       | GBP201 | GBP202 | GBP204 | GBP206 | GBP208 | GBP2010 | UNIT             |
|--|--------------|--------|--------|--------|--------|--------|---------|------------------|
| Maximum Recurrent Peak Reverse Voltage   | 50           | 100    | 200    | 400    | 600    | 800    | 1000    | V                |
| Maximum RMS Input Voltage  | 35           | 70     | 140    | 280    | 420    | 560    | 700     | V                |
| Maximum DC Blocking Voltage  | 50           | 100    | 200    | 400    | 600    | 800    | 1000    | V                |
| Maximum Average Rectified Output Current at 50°C Ambient.  | 2.0          |        |        |        |        |        |         | A                |
| Peak One Cycle Surge Overload Current  | 60.0         |        |        |        |        |        |         | A                |
| Maximum Instantaneous Forward Voltage Drop per Bridge element at 1.0A dc   | 1.0          |        |        |        |        |        |         | V                |
| Maximum ( Total Bridge) Reverse Leakage at rated T <sub>A</sub> =25°<br>CDc Blocking Voltage per element T <sub>A</sub> =100°C | 5.0<br>500   |        |        |        |        |        |         | μA               |
| I <sup>2</sup> t Rating for fusing ( t<8.35ms)   | 15.0         |        |        |        |        |        |         | A <sup>2</sup> S |
| Typical junction capacitance per leg (Note 1)  | 25.0         |        |        |        |        |        |         | pF               |
| Typical Thermal Resistance per leg (Note 2) R <sub>θJA</sub><br>R <sub>θJL</sub>   | 32.0<br>13.0 |        |        |        |        |        |         | °C / W           |
| Operating Temperature Range, T <sub>J</sub>  | -55 to +125  |        |        |        |        |        |         | °C               |
| Storage Temperature Range, T <sub>STG</sub>  | -55 to +150  |        |        |        |        |        |         | °C               |

**NOTES:**

1. Measured at 1.0MHZ and applied reverse voltage of 4.0 volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.47 x 0.47"(12 x 12mm)copper pads.



**RATING AND CHARACTERISTIC CURVES**

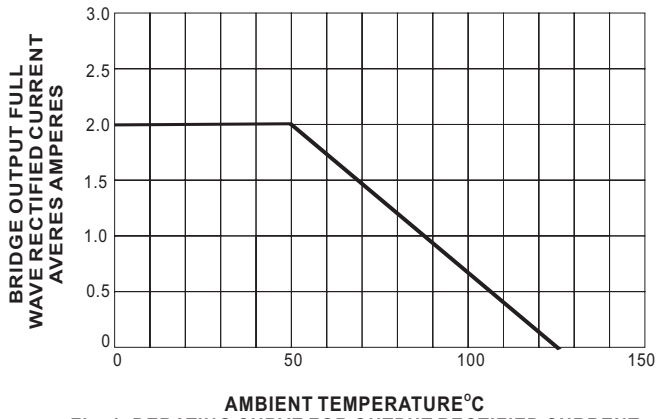


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

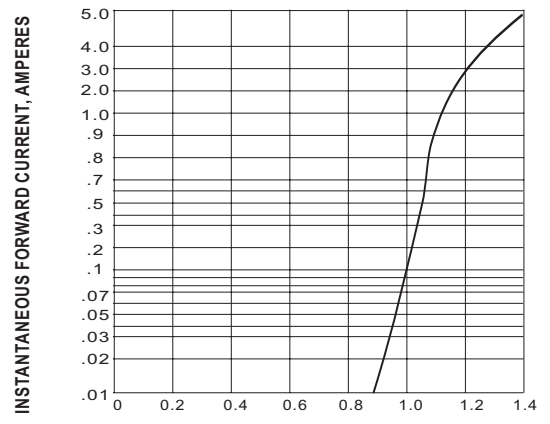


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS (25°C)

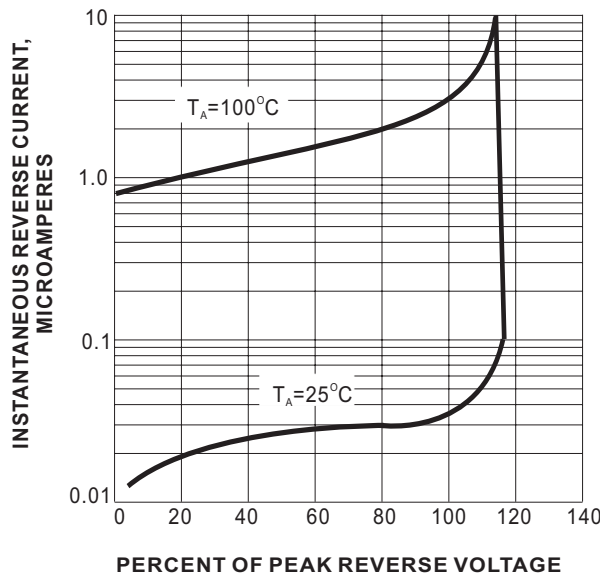


Fig. 3- TYPICAL REAK REVERSE CHARACTERISTICS

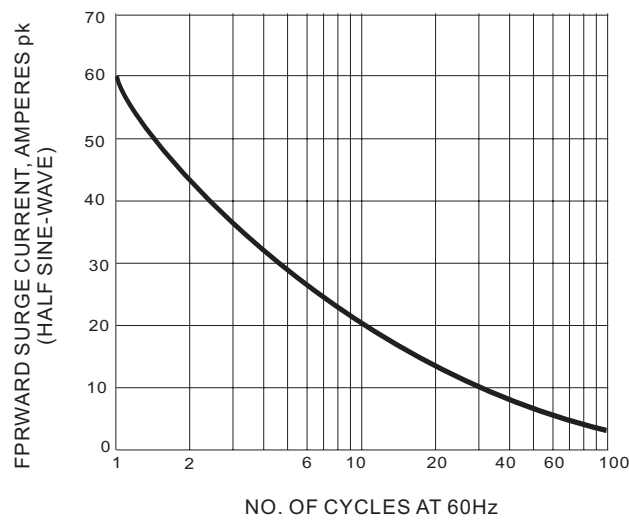


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT