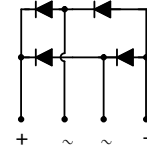
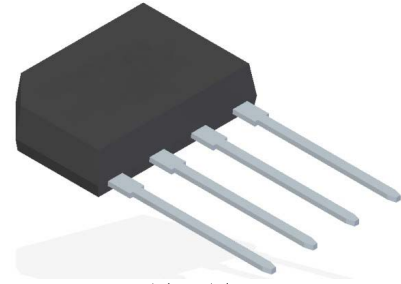




### GBP



## FEATURES

- Rating to 1000V PRV
- Surge overload rating to 70Amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208
- Plastic material has UL flammability classification 94V-O
- Glass passivated chip junctions

## Maximum Ratings (@TA = 25°C unless otherwise specified)

| Characteristic                                                                          | Symbol           | GBP 3005 | GBP 301 | GBP 302 | GBP 304 | GBP 306 | GBP 307 | GBP 308 | GBP 310 | UNITS            |
|-----------------------------------------------------------------------------------------|------------------|----------|---------|---------|---------|---------|---------|---------|---------|------------------|
| Maximum recurrent peak reverse voltage                                                  | $V_{RRM}$        | 50       | 100     | 200     | 400     | 600     | 700     | 800     | 1000    | V                |
| Maximum RMS voltage                                                                     | $V_{RMS}$        | 35       | 70      | 140     | 280     | 420     | 490     | 560     | 700     | V                |
| Maximum DC blocking voltage                                                             | $V_{DC}$         | 50       | 100     | 200     | 400     | 600     | 700     | 800     | 1000    | V                |
| Maximum average forward Output current<br>@TA=25°C                                      | $I_{F(AV)}$      | 3.0      |         |         |         |         |         |         |         | A                |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load | $I_{FSM}$        | 70       |         |         |         |         |         |         |         | A                |
| I <sup>2</sup> t Rating for fusing @Tj=25°C                                             | I <sup>2</sup> t | 33.6     |         |         |         |         |         |         |         | A <sup>2</sup> S |

## Thermal Characteristics

| Characteristic                       | Symbol           | GBP<br>3005     | GBP<br>301 | GBP<br>302 | GBP<br>304 | GBP<br>306 | GBP<br>307 | GBP<br>308 | GBP<br>310 | UNITS |
|--------------------------------------|------------------|-----------------|------------|------------|------------|------------|------------|------------|------------|-------|
| Typical Thermal Resistance (Note)    | R <sub>θJA</sub> | 45              |            |            |            |            |            |            |            | °C/W  |
|                                      | R <sub>θJC</sub> | 2.5             |            |            |            |            |            |            |            |       |
|                                      | R <sub>θJL</sub> | 10              |            |            |            |            |            |            |            |       |
| Operating junction temperature range | T <sub>J</sub>   | - 55 ---- + 150 |            |            |            |            |            |            |            | °C    |
| Storage temperature range            | T <sub>STG</sub> | - 55 ---- + 150 |            |            |            |            |            |            |            | °C    |

## Electrical Characteristics (@TA = 25°C unless otherwise specified)

| Characteristic                                                             | Symbol | GBP 3005 | GBP 301 | GBP 302 | GBP 304 | GBP 306 | GBP 307 | GBP 308 | GBP 310 | UNITS |
|----------------------------------------------------------------------------|--------|----------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum instantaneous forward voltage<br>@3A                               | $V_F$  | 1.1      |         |         |         |         |         |         |         | V     |
| Maximum reverse current @TA=25°C<br>at rated DC blocking voltage @TA=100°C | $I_R$  | 5.0      |         |         |         |         |         |         |         | μ A   |
|                                                                            |        | 0.5      |         |         |         |         |         |         |         | mA    |

## RATINGS AND CHARACTERISTICS CURVES

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

FIG1:  $I_o$ - $T_c$  Curve

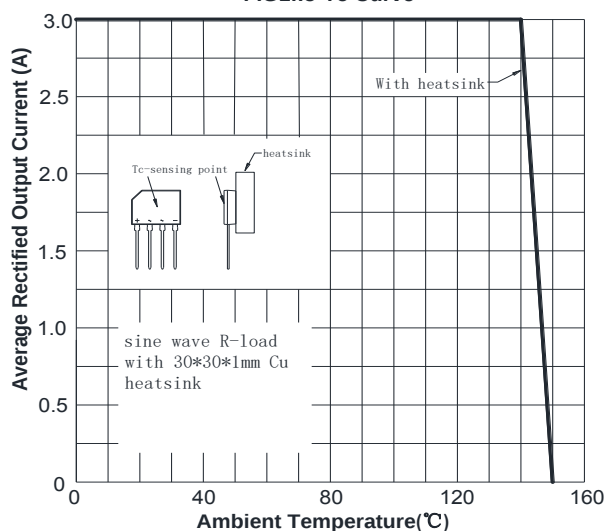


FIG2: Surge Forward Current Capability

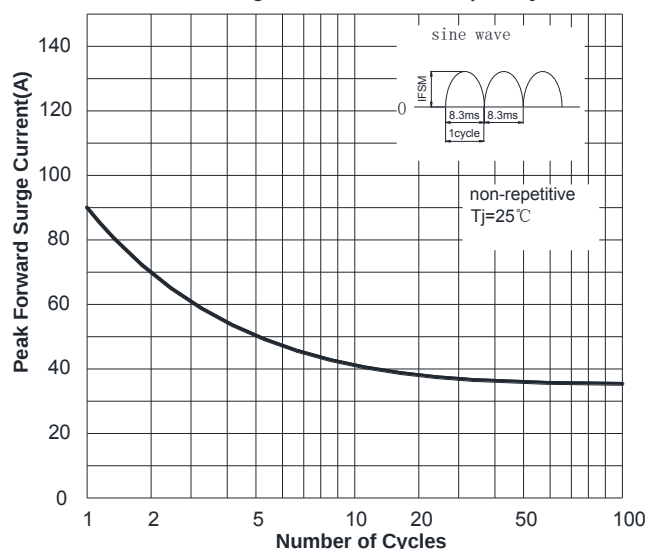


FIG3: Forward Voltage

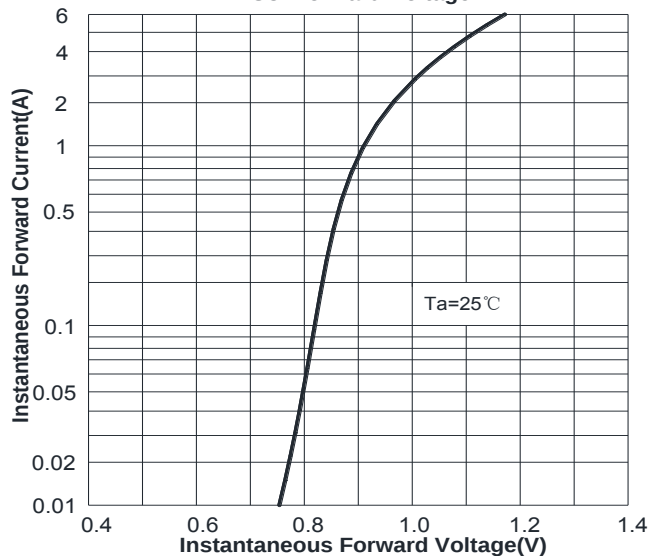
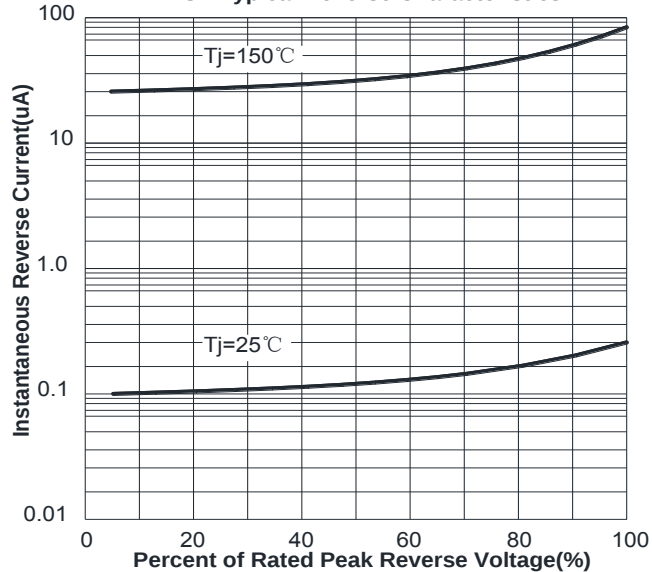
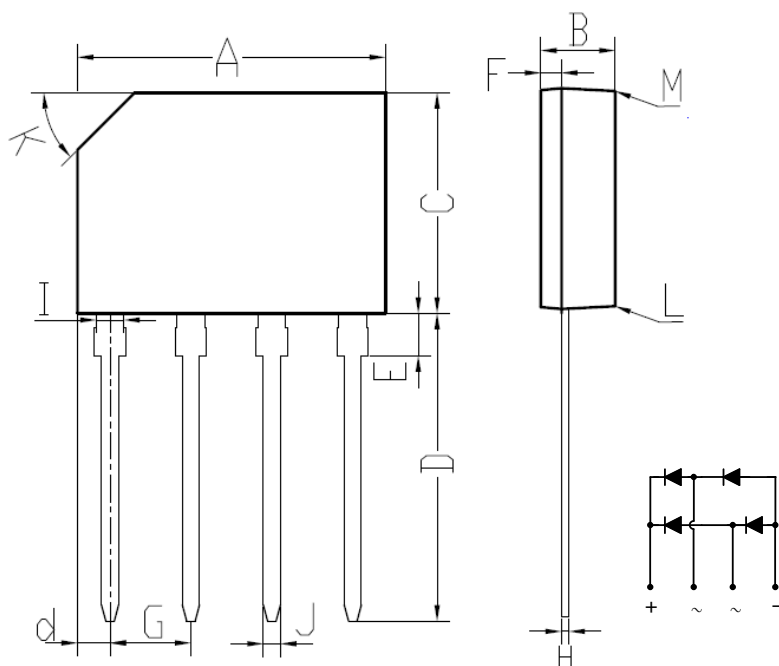


FIG4: Typical Reverse Characteristics



### GBP Package Outline Dimensions



| GBP                          |                 |       |
|------------------------------|-----------------|-------|
| DIM.                         | MIN.            | MAX.  |
| A                            | 14.25           | 14.75 |
| B                            | 3.35            | 3.65  |
| C                            | 10.20           | 10.60 |
| D                            | 14.25           | 14.73 |
| d                            | 1.40            | 1.70  |
| E                            | 1.80            | 2.20  |
| F                            | 0.80            | 1.10  |
| G                            | 3.56            | 4.06  |
| H                            | 0.35            | 0.55  |
| I                            | 1.22            | 1.42  |
| J                            | 0.76            | 0.86  |
| K                            | 2.7 x 45° (Typ) |       |
| L                            | #               | 3°    |
| M                            | #               | 2°    |
| All Dimensions in millimeter |                 |       |

| Device          | Package | Shipping     |
|-----------------|---------|--------------|
| GBP3005--GBP310 | GBP     | 500Units/Box |