

## GBP Plastic-Encapsulate Bridge Rectifier

### General Purpose Bridge Rectifier

#### Features

- $I_o$  2.0 A
- $V_{RRM}$  50V-1000V
- High surge current capability
- Glass passivated chip

#### Applications

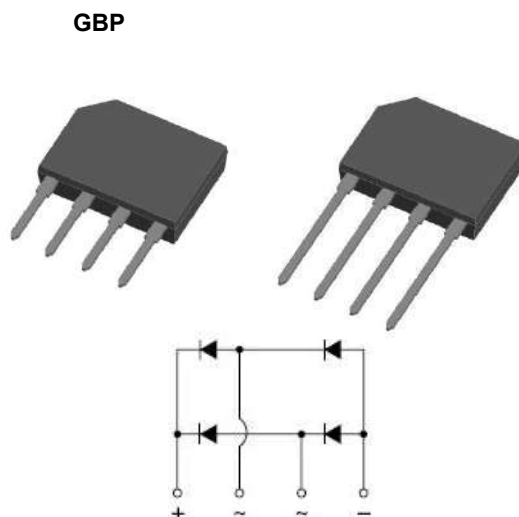
- General purpose 1 phase Bridge rectifier applications

#### Marking

GBP2XXG  
XX : From 005 To 10

#### Chip

- Photoresist Chip 70MIL



### Limiting Values (Absolute Maximum Rating)

| Item                                 | Symbol    | Unit                 | Conditions                                                                      | GBP2       |     |     |     |     |     |      |
|--------------------------------------|-----------|----------------------|---------------------------------------------------------------------------------|------------|-----|-----|-----|-----|-----|------|
|                                      |           |                      |                                                                                 | 005G       | 01G | 02G | 04G | 06G | 08G | 10G  |
| Repetitive Peak Reverse Voltage      | $V_{RRM}$ | V                    |                                                                                 | 50         | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Rectified Output Current     | $I_o$     | A                    | 60Hz sine wave, R-load, $T_a=105^\circ\text{C}$                                 | 2.0        |     |     |     |     |     |      |
| Surge(Non-repetitive)Forward Current | $I_{FSM}$ | A                    | 60Hz half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$                            | 75         |     |     |     |     |     |      |
| Current Squared Time                 | $I^2t$    | $\text{A}^2\text{S}$ | $1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$ , Rating of per diode | 17.5       |     |     |     |     |     |      |
| Storage Temperature                  | $T_{stg}$ | $^\circ\text{C}$     |                                                                                 | -55 ~ +150 |     |     |     |     |     |      |
| Junction Temperature                 | $T_j$     | $^\circ\text{C}$     |                                                                                 | -55 ~ +150 |     |     |     |     |     |      |

### Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| Item                 | Symbol           | Unit               | Test Condition                                                | Max |
|----------------------|------------------|--------------------|---------------------------------------------------------------|-----|
| Peak Forward Voltage | $V_{FM}$         | V                  | $I_{FM}=2.0\text{A}$ , Pulse measurement, Rating of per diode | 1.1 |
| Peak Reverse Current | $I_{RRM}$        | $\mu\text{A}$      | $V_{RM}=V_{RRM}$ , Pulse measurement, Rating of per diode     | 5   |
| Thermal Resistance   | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | Between junction and ambient                                  | 40  |
|                      | $R_{\theta J-C}$ |                    | Between junction and case                                     | 14  |

## Typical Characteristics

FIG.1-MAXIMUM NON-REPETITIVE SURGE CURRENT

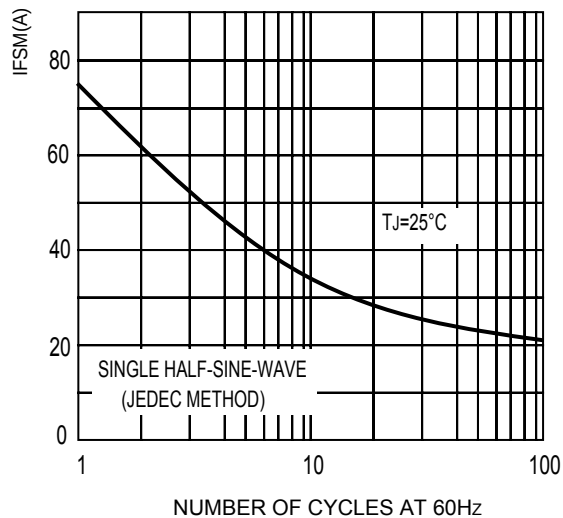


FIG.2-FORWARD DERATING CURRENT

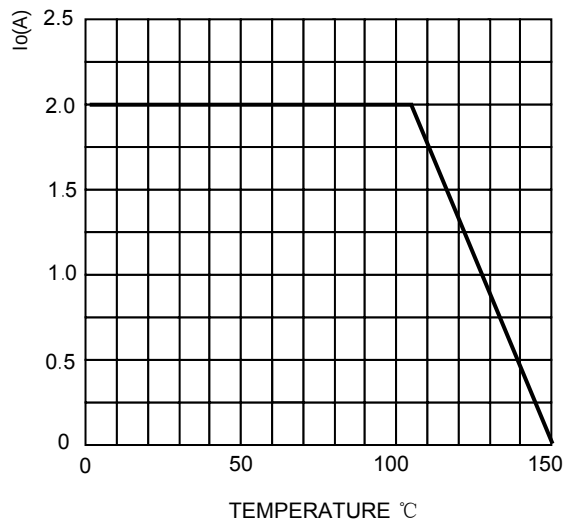
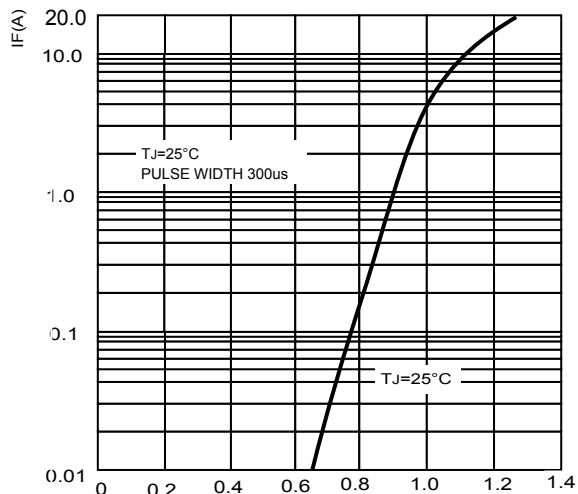
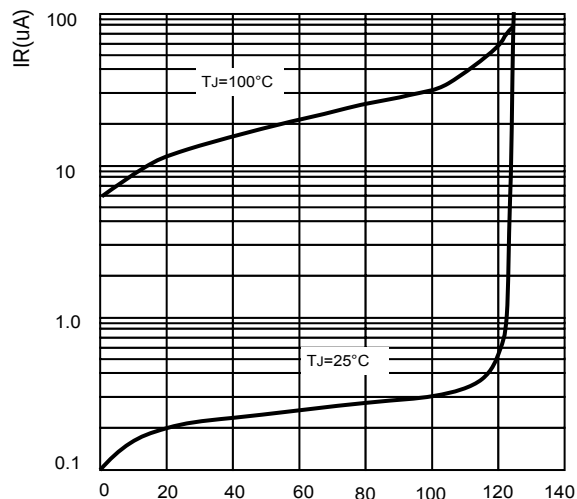


FIG.3-TYPICAL FORWARD CHARACTERISTICS



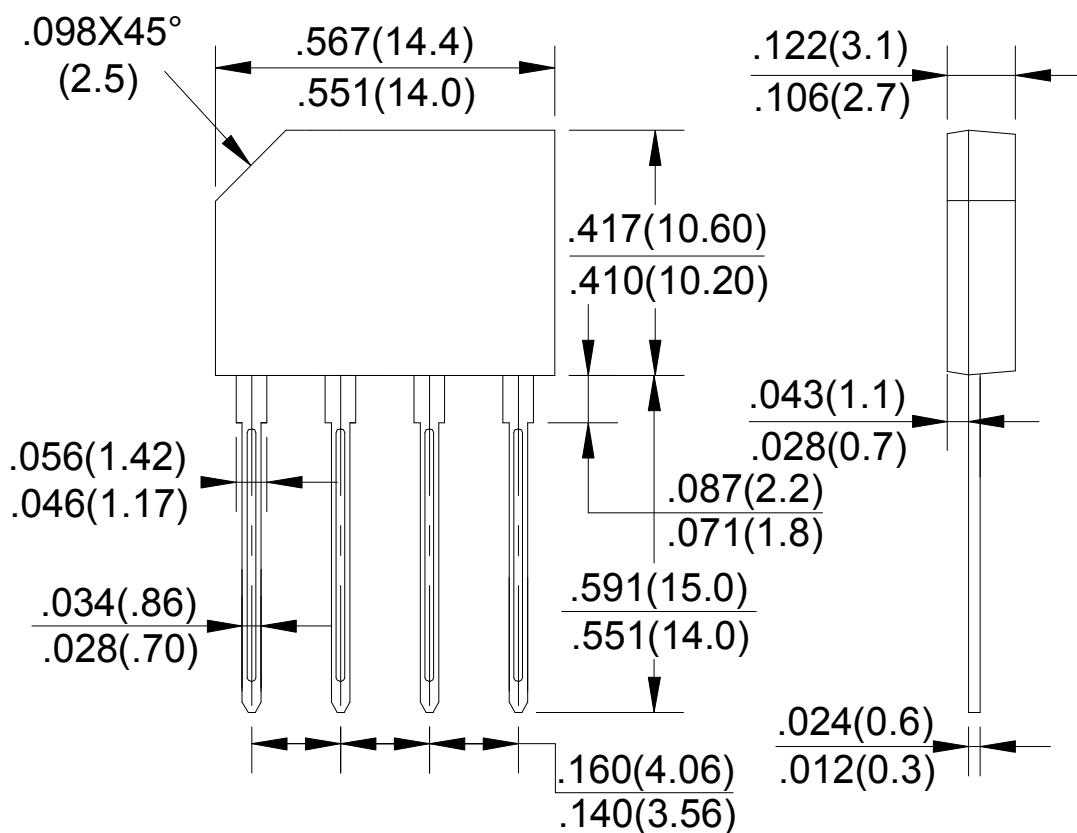
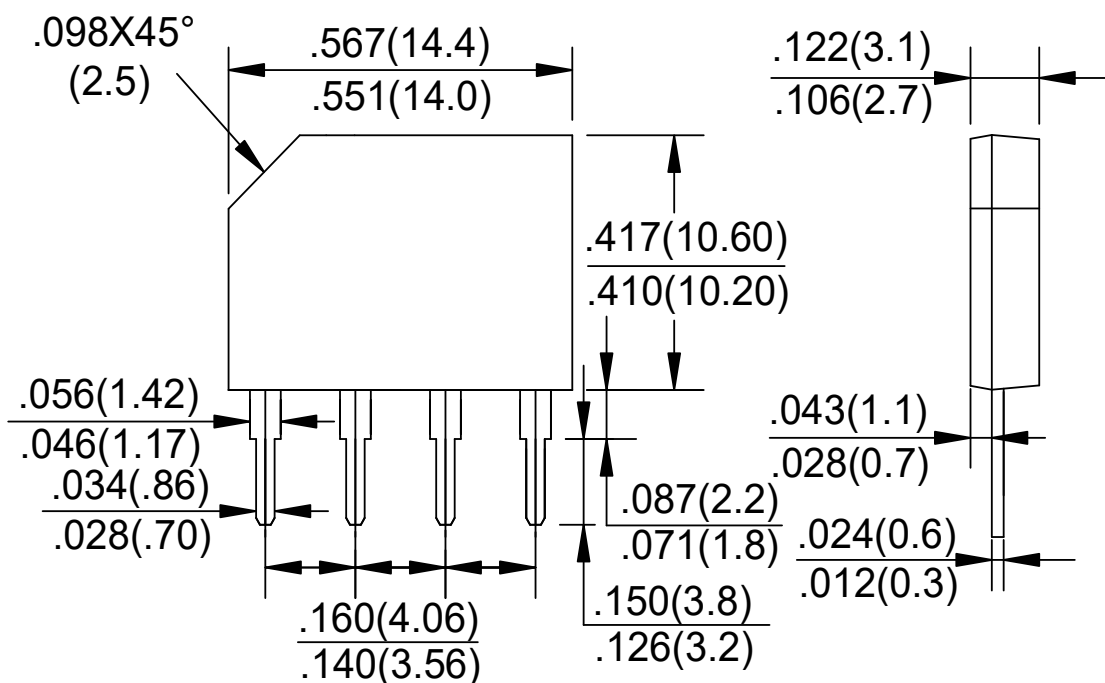
INSTANTANEOUS FORWARD VOLTAGE. VOLTS

FIG.4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE

## GBP Package Outline Dimensions



Dimensions in inches and (millimeters)