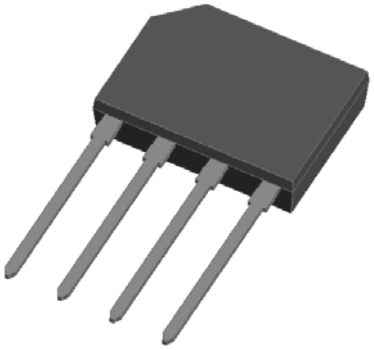
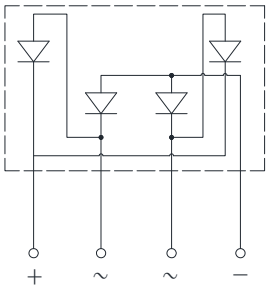
# Bridge Rectifiers






## Features

- UL recognition, file #E230084
- 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 ($T_a$=25℃ Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | GBP3005S | GBP301S | GBP302S | GBP304S | GBP306S | GBP308S | GBP310S |
|---|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | | GBP3005S | GBP301S | GBP302S | GBP304S | GBP306S | GBP308S | GBP310S |
| Repetitive peak reverse voltage | | $V_{RRM}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load | With heatsink $T_C$ =130℃ | $I_O$ | A | 3.0 | | | | | | |
| | Without heatsink $T_C$ =70℃ | | | | | | | | | |
| Surge(non-repetitive)forward current @60HZ sine wave, 1 cycle, Tj=25℃ | | $I_{FSM}$ | A | 65 | | | | | | |
| Current squared time @1ms≤t<8.3ms Tj=25℃, Rating of per diode | | $I^2t$ | $A^2s$ | 17.5 | | | | | | |
| Storage temperature | | $T_{stg}$ | ℃ | -55 ~+150 | | | | | | |
| Junction temperature | | $T_j$ | ℃ | -55 ~+150 | | | | | | |

## ■Electrical Characteristics ($T_a$=25℃ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBP3005S | GBP301S | GBP302S | GBP304S | GBP306S | GBP308S | GBP310S |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=1.5A | 1.05 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_{RRM}$ | μA | $V_{RM}$=$V_{RRM}$ | 5 | | | | | | |

## ■Thermal Characteristics ($T_a$=25℃ Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | GBP3005S | GBP301S | GBP302S | GBP304S | GBP306S | GBP308S | GBP310S |
|---|---|---|---|---|---|---|---|---|---|---|
| Thermal Resistance | Between junction and ambient | $R_{\theta J-A}$ | ℃/W | 50 | | | | | | |
| | Between junction and lead | $R_{\theta J-c}$ | | 5 | | | | | | |

## ■Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| GBP3005S THRU GBP310S | B1 | 1.37 | 35 | 3500 | 7000 | TUBE |
| GBP3005S THRU GBP310S | A1 | 1.37 | 500 | 500 | 5000 | BOX |

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

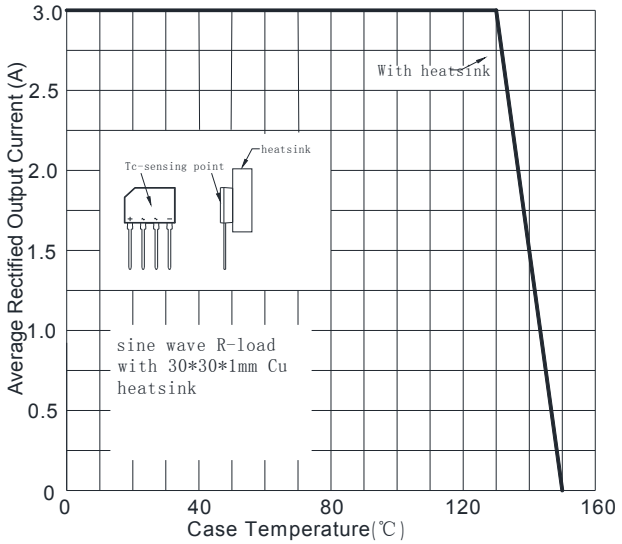



FIG2:Surge Forward Current Capability

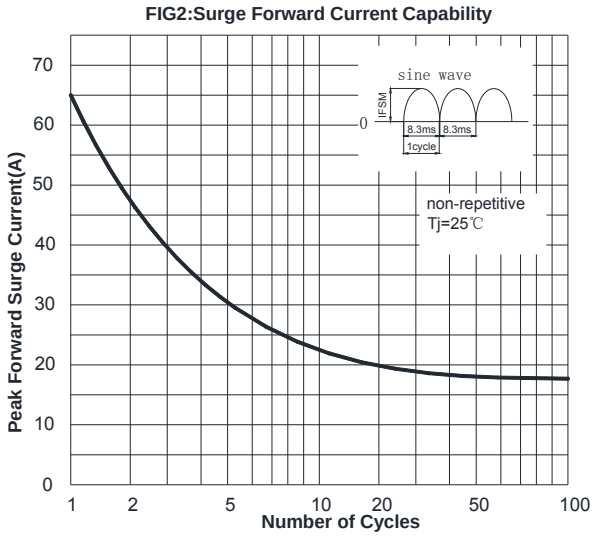



FIG3: Forward Voltage

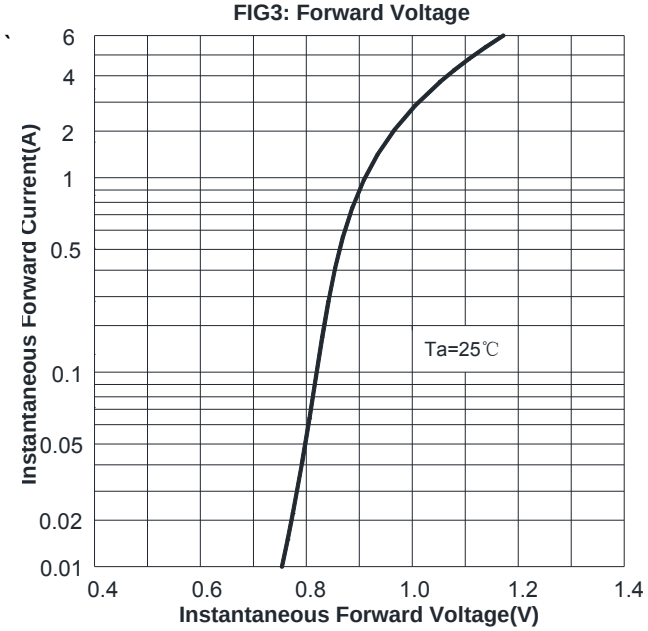
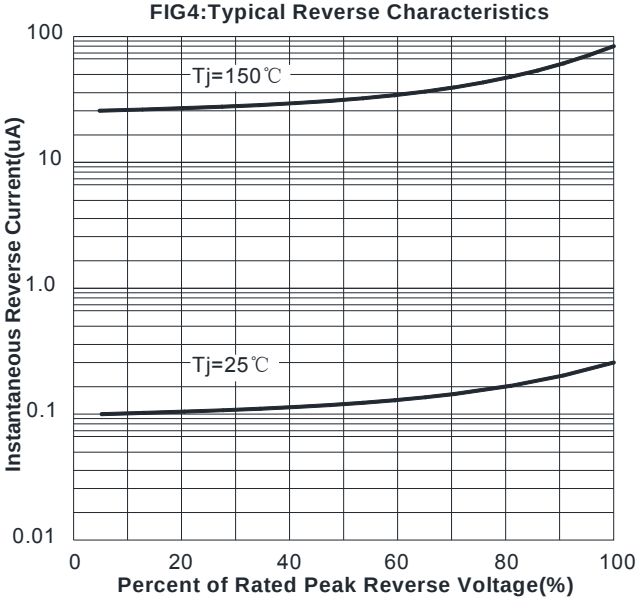
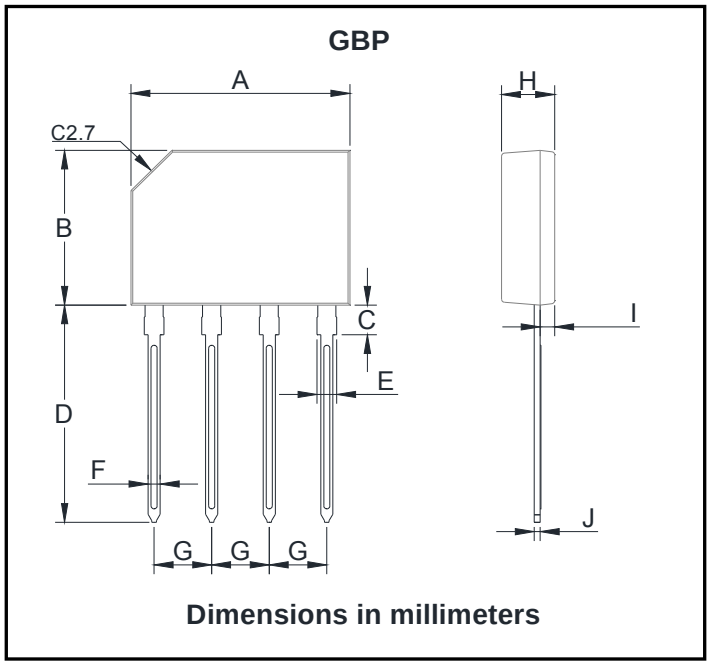



FIG4:Typical Reverse Characteristics



## ■ Outline Dimensions




| GBP | | |
|---|---|---|
| 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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