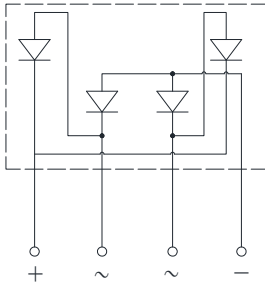
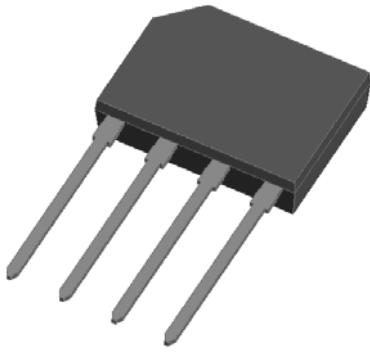


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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 ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GBP4005A | GBP401A | GBP402A | GBP404A | GBP406A | GBP408A | GBP410A |
|---|-----------|----------------------|------------|---------|---------|---------|---------|---------|---------|
| Device marking code | | | GBP4005A | GBP401A | GBP402A | GBP404A | GBP406A | GBP408A | GBP410A |
| Maximum Repetitive Peak Reverse Voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | VRMS | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | VDC | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, $T_c=110^{\circ}\text{C}$ | I_O | A | 4.0 | | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$ | IFSM | A | 135 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$ | | | 270 | | | | | | |
| Current squared time @1ms≤t<8.3ms $T_j=25^{\circ}\text{C}$, Rating of per diode | I^2t | A^2s | 75.6 | | | | | | |
| Dielectric strength @ terminals to case, AC 1 minute | Vdis | KV | 2 | | | | | | |
| Storage temperature | T_{stg} | $^{\circ}\text{C}$ | -55 ~ +150 | | | | | | |
| Junction temperature | T_j | $^{\circ}\text{C}$ | -55 ~ +150 | | | | | | |



GBP4005A THRU GBP410A

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBP4005A | GBP401A | GBP402A | GBP404A | GBP406A | GBP408A | GBP410A | |
|---|----------------|------|---|----------|---------|---------|---------|---------|---------|---------|--|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =2.0A | | | | | | | 1.0 | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _R | μA | T _j =25°C | | | | | | | 5 | |
| | | | T _j =125°C | | | | | | | 100 | |
| Typical junction capacitance | C _j | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | | | | | | | 40 | |

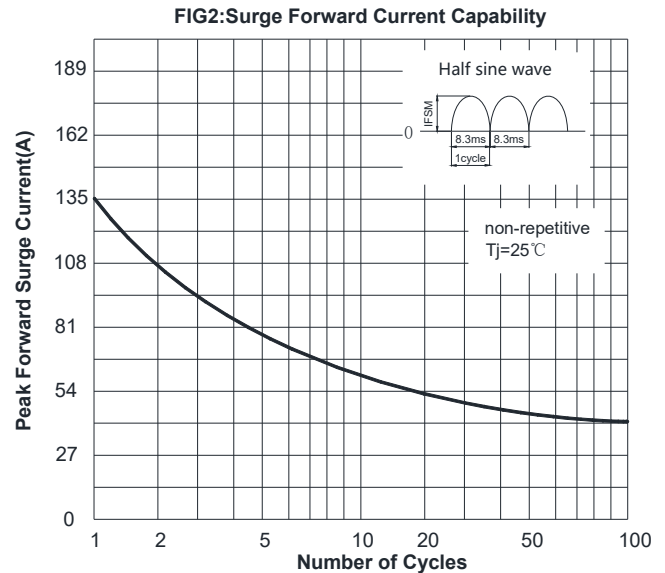
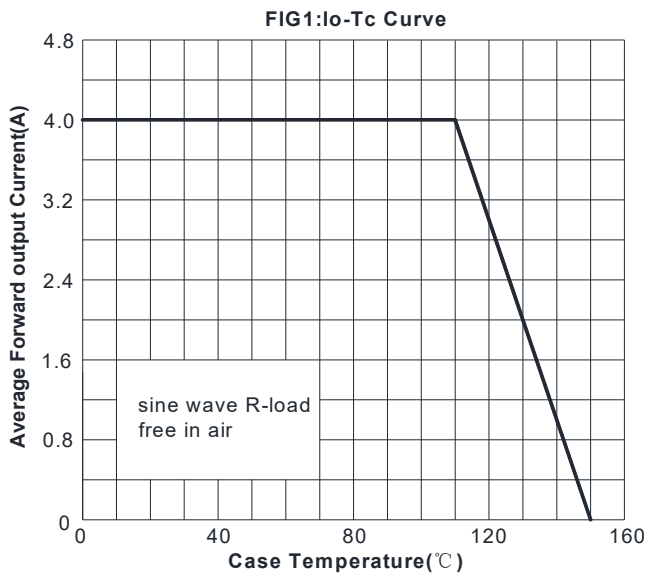
■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | GBP4005A | GBP401A | GBP402A | GBP404A | GBP406A | GBP408A | GBP410A | |
|--------------------|------------------------------|-------------------|------|----------|---------|---------|---------|---------|---------|---------|--|
| Thermal Resistance | Between junction and ambient | R _{θJ-A} | °C/W | | | | | | | 45 | |
| | Between junction and lead | R _{θJ-L} | | | | | | | | 5 | |

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| GBP4005A - GBP410A | B1 | Approximate 1.4 | 35 | 2100 | 4200 | TUBE |

■ Characteristics (Typical)





GBP4005A THRU GBP410A

FIG3: Typical Forward Voltage

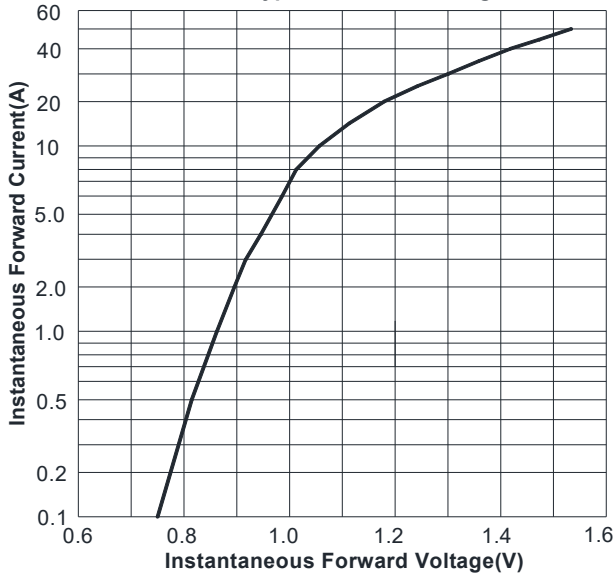
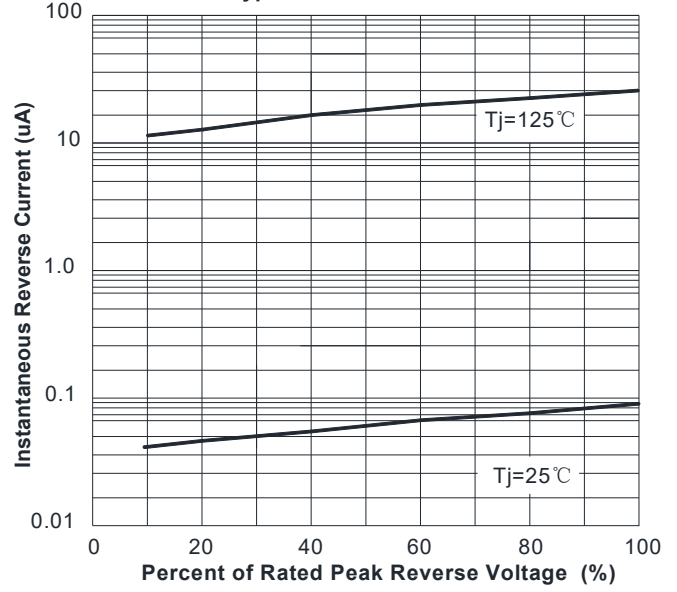
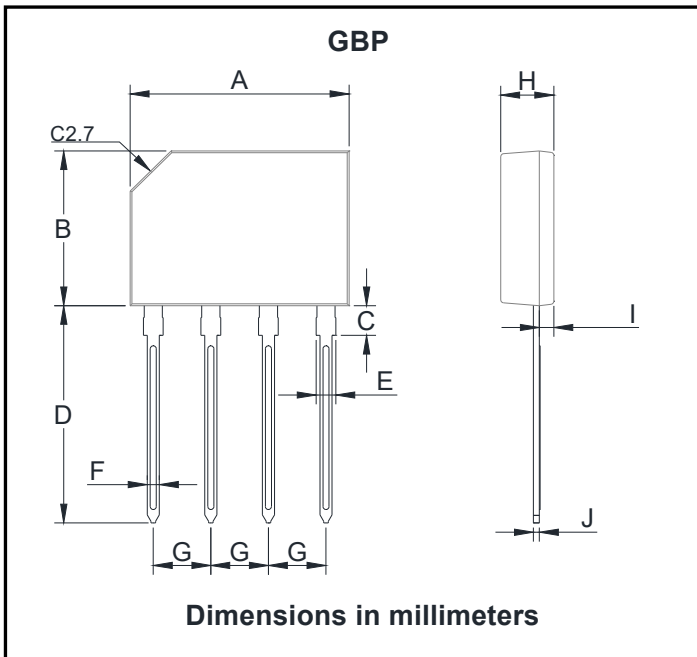


FIG4: Typical Reverse Characteristics



■ 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 |



GBP4005A THRU GBP410A

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