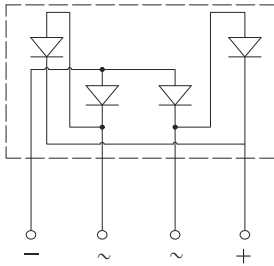
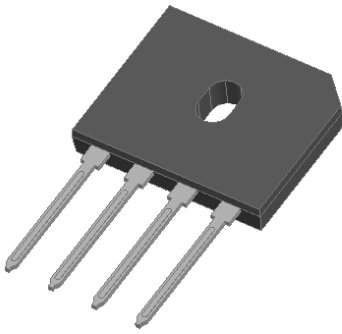


Bridge Rectifiers



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:** GBU
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 (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GBU30005 | GBU3001 | GBU3002 | GBU3004 | GBU3006 | GBU3008 | GBU3010 |
|--|------------------------------|-------|------------|---------|---------|---------|---------|---------|---------|
| Device marking code | | | GBU30005 | GBU3001 | GBU3002 | GBU3004 | GBU3006 | GBU3008 | GBU3010 |
| 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 | With heatsink Tc =100°C | IO | A | 30.0 | | | | | |
| | Without heatsink Ta =25°C | | | 4.0 | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C | IFSM | A | 350 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | | 700 | | | | | | |
| Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode | I²t | A²S | 508 | | | | | | |
| Storage temperature | Tstg | °C | -55 ~ +150 | | | | | | |
| Junction temperature | Tj | °C | -55 ~ +150 | | | | | | |
| Dielectric strength @ Terminals to case, AC 1 minute | Vdis | KV | 2.5 | | | | | | |
| Mounting torque @Recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |



GBU30005 THRU GBU3010

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBU30005 | GBU3001 | GBU3002 | GBU3004 | GBU3006 | GBU3008 | GBU3010 |
|---|----------------|------|---|----------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=15.0A | 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 | 118 | | | | | | |

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

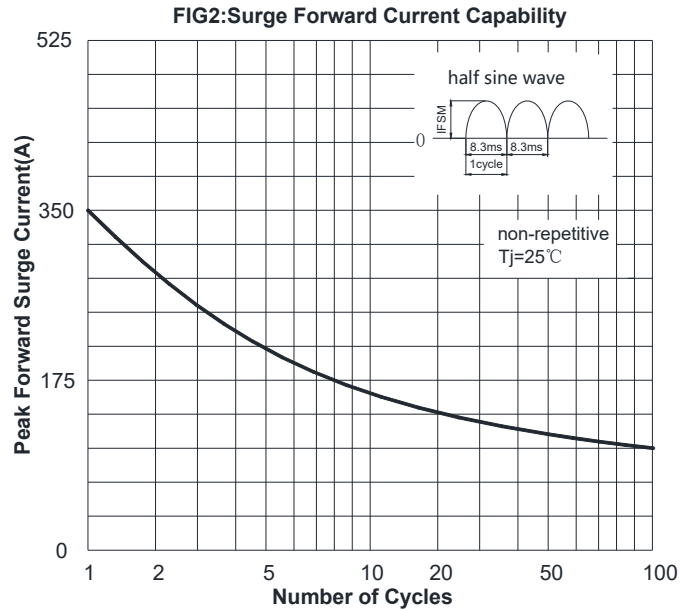
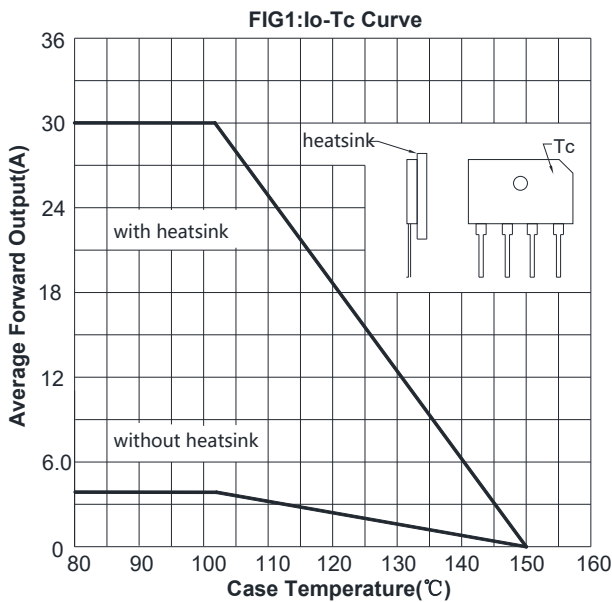
| PARAMETER | | SYMBOL | UNIT | GBU30005 | GBU3001 | GBU3002 | GBU3004 | GBU3006 | GBU3008 | GBU3010 |
|--------------------|--|-------------------|------|----------|---------|---------|---------|---------|---------|---------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R _{θJ-A} | °C/W | 25.0 | | | | | | |
| | Between junction and case, With heatsink | R _{θJ-C} | | 0.8 | | | | | | |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| GBU30005 THRU GBU3010 | B1 | Approximate 3.95 | 20 | 1000 | 2000 | TUBE |

■ Characteristics (Typical)





GBU30005 THRU GBU3010

FIG3: Typical Forward Voltage

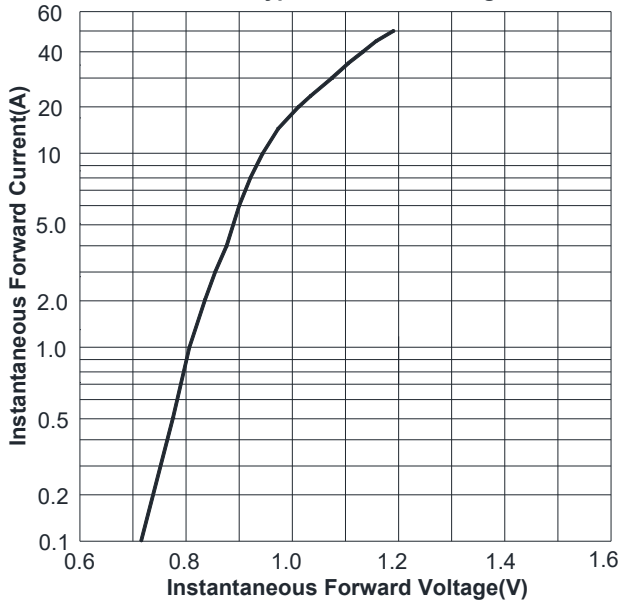
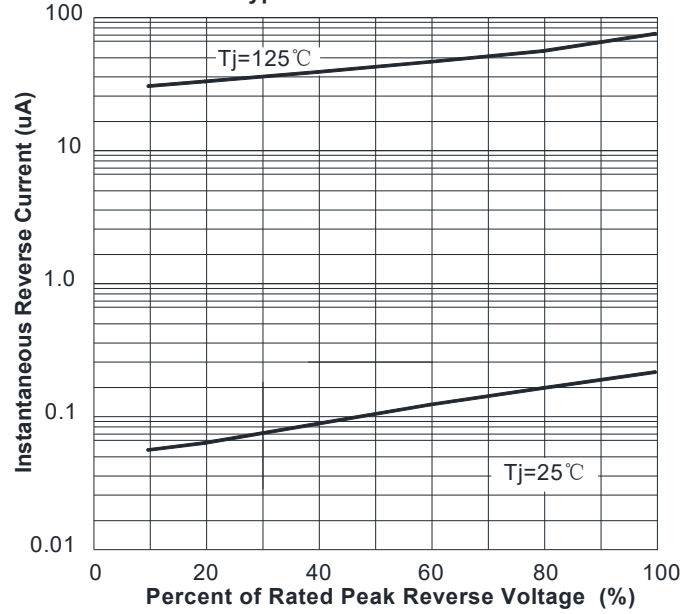
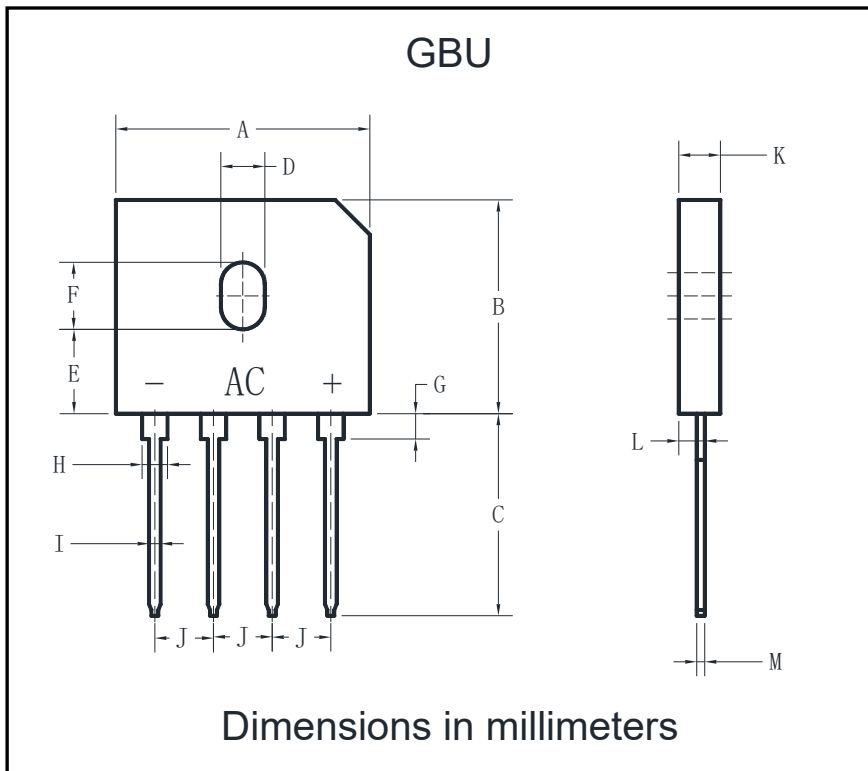


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



| GBU | | |
|-----|-------|-------|
| Dim | Min | Max |
| A | 21.80 | 22.30 |
| B | 18.30 | 18.80 |
| C | 17.50 | 18.00 |
| D | 3.30 | 3.90 |
| E | 7.10 | 7.50 |
| F | 5.50 | 5.90 |
| G | 1.91 | 2.54 |
| H | 2.06 | 2.54 |
| I | 1.02 | 1.27 |
| J | 4.83 | 5.33 |
| K | 3.30 | 3.56 |
| L | 2.40 | 2.66 |
| M | 0.46 | 0.56 |



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