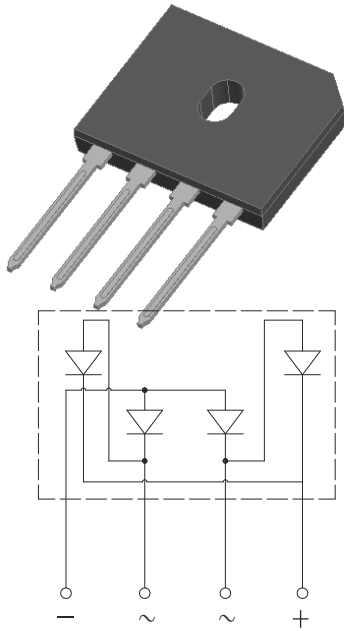


Bridge Rectifier



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:** 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 (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GBU4005 | GBU401 | GBU402 | GBU404 | GBU406 | GBU408 | GBU410 |
|---|--|------------------|-----------|--------|--------|--------|--------|--------|--------|
| Device marking code | | | GBU4005 | GBU401 | GBU402 | GBU404 | GBU406 | GBU408 | GBU410 |
| 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 =108°C | I _O | A | 4.0 | | | | | |
| | Without heatsink T _a =25°C | | | 2.3 | | | | | |
| Surge (non-repetitive) forward current @60HZ half sine wave, 1 cycle, T _j =25°C | I _{FSM} | A | 135 | | | | | | |
| Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode | I ² t | A ² S | 75 | | | | | | |
| Storage temperature | T _{stg} | °C | -55 ~+150 | | | | | | |
| Junction temperature | T _j | °C | -55 ~+150 | | | | | | |
| Dielectric strength @ terminals to case, AC 1 minute | V _{dis} | KV | 2.5 | | | | | | |
| Mounting torque @ recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBU4005 | GBU401 | GBU402 | GBU404 | GBU406 | GBU408 | GBU410 |
|---|------------------|------|-----------------------------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =2.0A | 1.00 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RRM} | 5 | | | | | | |



GBU4005 THRU GBU410

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

| PARAMETER | | SYMBOL | UNIT | GBU4005 | GBU401 | GBU402 | GBU404 | GBU406 | GBU408 | GBU410 |
|--------------------|---|------------------|--------------------|---------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance | Betw een junction and ambient, Without heatsink | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 26.0 | | | | | | |
| | Betw een junction and case, With heatsink | $R_{\theta J-C}$ | | 5.5 | | | | | | |

■ Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| GBU4005 THRU GBU410 | B1 | Approximate 3.96 | 20 | 1000 | 2000 | TUBE |

■ Characteristics (Typical)

FIG1:Io-Tc Curve

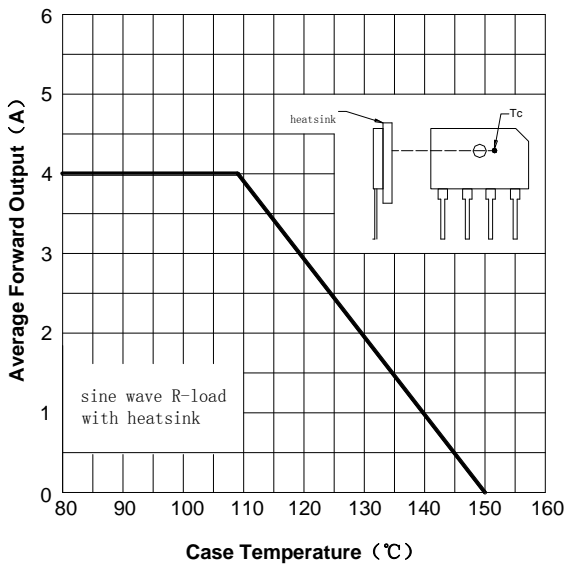


FIG2:Surge Forward Current Capability

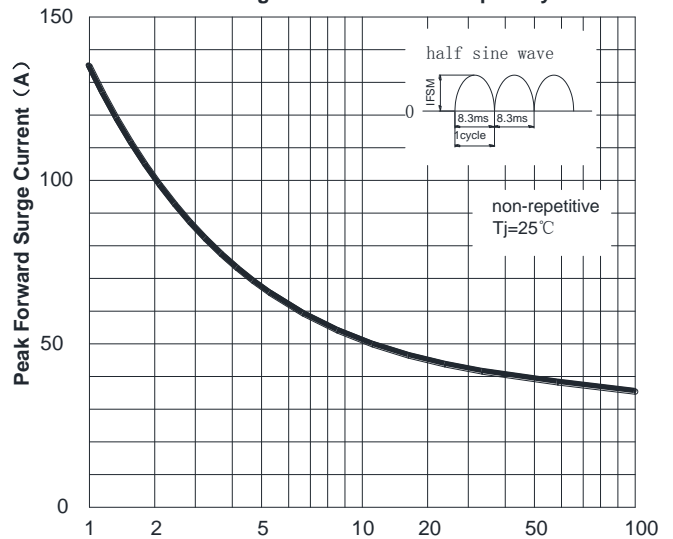


FIG3: Forward Voltage

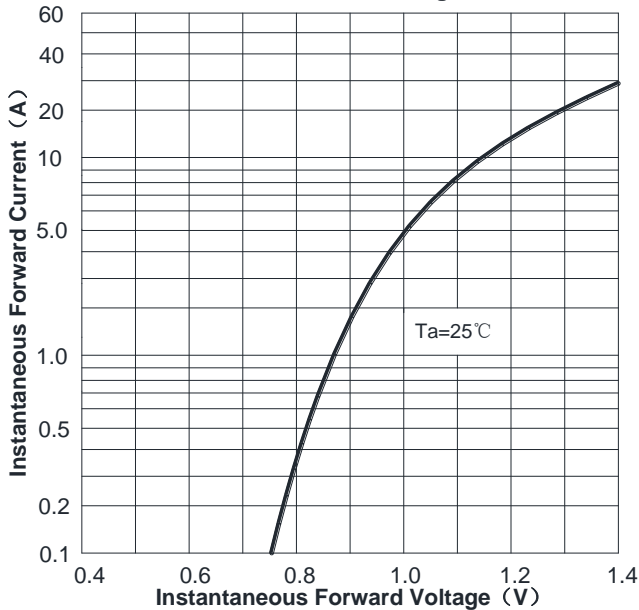
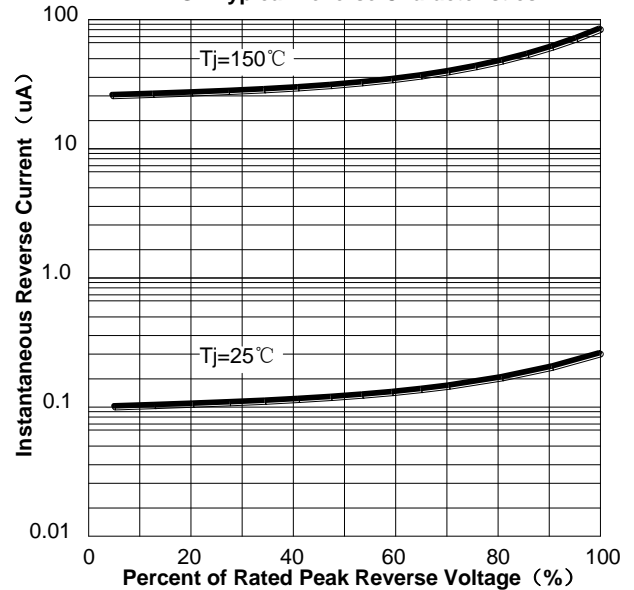


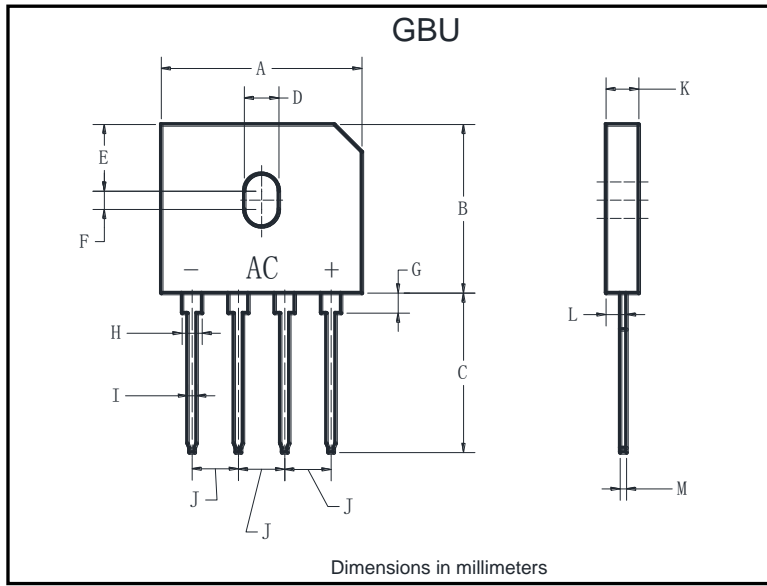
FIG4:Typical Reverse Characteristics





GBU4005 THRU GBU410

■ Outline Dimensions



| GBU | | |
|-----|-------|-------|
| Dim | Min | Max |
| A | 21.80 | 22.30 |
| B | 18.30 | 18.80 |
| C | 17.50 | 18.00 |
| D | 3.50 | 4.10 |
| E | 7.40 | 7.90 |
| F | 1.65 | 2.16 |
| 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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