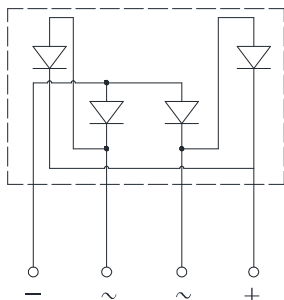
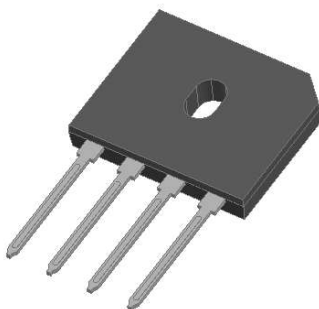


## Bridge Rectifier



### 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<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                     |                             | SYMBOL | UNIT  | GBU6005   | GBU601 | GBU602 | GBU604 | GBU606 | GBU608 | GBU610 |
|-------------------------------------------------------------------------------|-----------------------------|--------|-------|-----------|--------|--------|--------|--------|--------|--------|
| Device marking code                                                           |                             |        |       | GBU6005   | GBU601 | GBU602 | GBU604 | GBU606 | GBU608 | GBU610 |
| Repetitive peak reverse voltage                                               |                             | VRRM   | V     | 50        | 100    | 200    | 400    | 600    | 800    | 1000   |
| Average rectified output current<br>@60Hz sine wave, R-load                   | With heatsink<br>Tc =110℃   | IO     | A     | 6.0       |        |        |        |        |        |        |
|                                                                               | Without heatsink<br>Ta =25℃ |        |       | 2.8       |        |        |        |        |        |        |
| Surge(non-repetitive)forward current<br>@60Hz half sine wave, 1 cycle, Tj=25℃ |                             | IFSM   | A     | 150       |        |        |        |        |        |        |
| Current squared time<br>@1ms≤t≤8.3ms Tj=25℃, Rating of per diode              |                             | I²t    | A²S   | 93        |        |        |        |        |        |        |
| Storage temperature                                                           |                             | Tstg   | ℃     | -55 ~+150 |        |        |        |        |        |        |
| Junction temperature                                                          |                             | Tj     | ℃     | -55 ~+150 |        |        |        |        |        |        |
| Dielectric strength<br>@terminals to case, AC 1 minute                        |                             | Vdis   | KV    | 2.5       |        |        |        |        |        |        |
| Mounting torque<br>@recommend torque: 5kg·cm                                  |                             | Tor    | kg·cm | 8         |        |        |        |        |        |        |

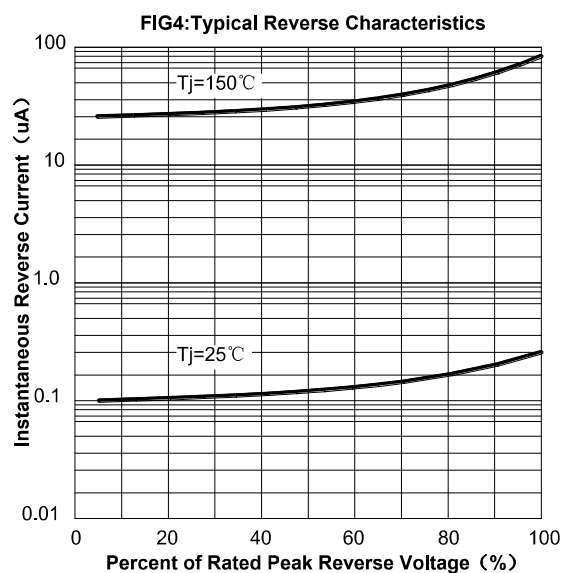
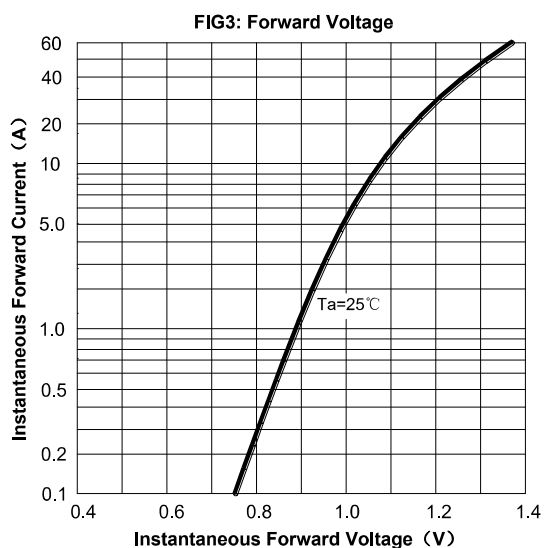
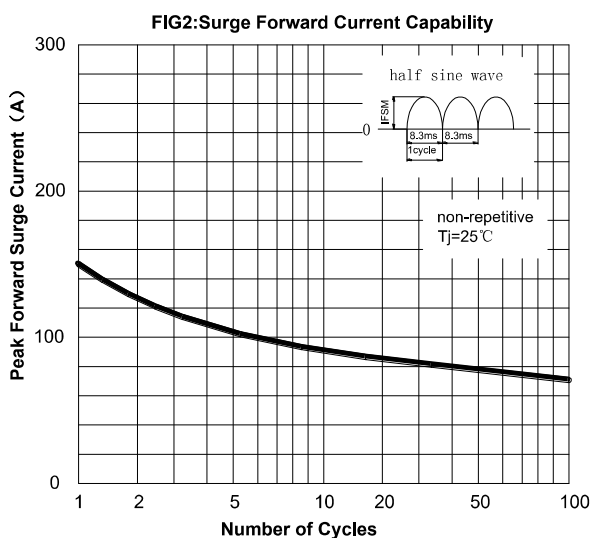
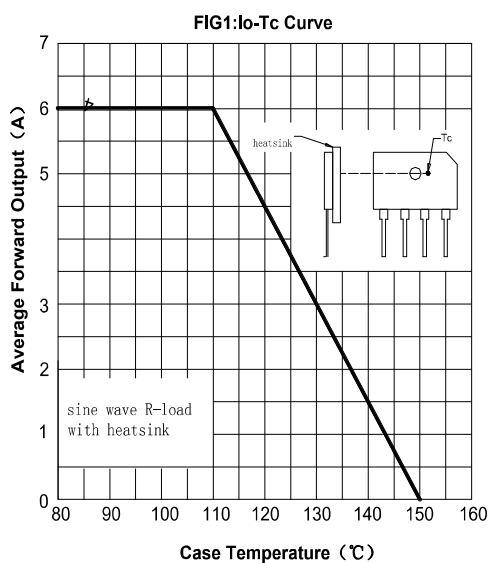
### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                         | SYMBOL           | UNIT | TEST CONDITIONS                   | GBU6005 | GBU601 | GBU602 | GBU604 | GBU606 | GBU608 | GBU610 |
|-------------------------------------------------------------------|------------------|------|-----------------------------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub>   | V    | I <sub>FM</sub> =3.0A             | 1.00    |        |        |        |        |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM</sub> | μA   | V <sub>RM</sub> =V <sub>RRM</sub> | 5       |        |        |        |        |        |        |

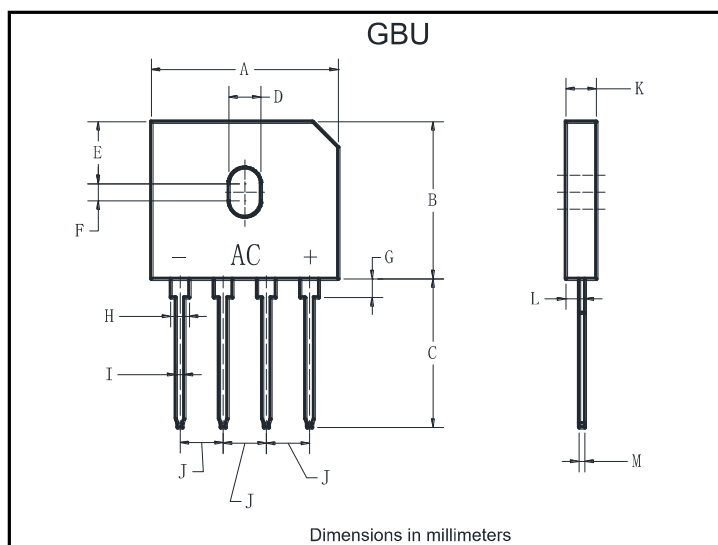
## ■ Thermal Characteristics ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

| PARAMETER          |                                                | SYMBOL           | UNIT                 | GBU6005 | GBU601 | GBU602 | GBU604 | GBU606 | GBU608 | GBU610 |
|--------------------|------------------------------------------------|------------------|----------------------|---------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance | Between junction and ambient, Without heatsink | $R_{\theta J-A}$ | $^{\circ}\text{C/W}$ | 26.0    |        |        |        |        |        |        |
|                    | Between junction and case, With heatsink       | $R_{\theta J-C}$ |                      | 3.4     |        |        |        |        |        |        |

## ■ Characteristics (Typical)



## ■ 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  |