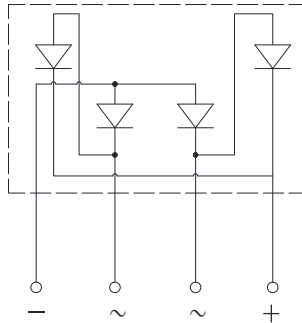


## Bridge Rectifiers



### 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, -
- **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  | GBU15A     | GBU15B | GBU15D | GBU15G | GBU15J | GBU15K | GBU15M |
|----------------------------------------------------------------------------------|------------------------------|--------|-------|------------|--------|--------|--------|--------|--------|--------|
| Device marking code                                                              |                              |        |       | GBU15A     | GBU15B | GBU15D | GBU15G | GBU15J | GBU15K | GBU15M |
| 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<br>@60Hz sine wave, R-load                      | With heatsink<br>Tc =100°C   | IO     | A     | 15.0       |        |        |        |        |        |        |
|                                                                                  | Without heatsink<br>Ta =25°C |        |       | 3.2        |        |        |        |        |        |        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, Tj=25°C |                              | IFSM   | A     | 200        |        |        |        |        |        |        |
| Current squared time<br>@1ms≤t≤8.3ms Tj=25°C, Rating of per diode                |                              | I²t    | A²S   | 166        |        |        |        |        |        |        |
| Storage temperature                                                              |                              | Tstg   | °C    | -55 ~ +150 |        |        |        |        |        |        |
| Junction temperature                                                             |                              | Tj     | °C    | -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          |        |        |        |        |        |        |

# GBU15A THRU GBU15M

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

| PARAMETER                                                         | SYMBOL         | UNIT | TEST CONDITIONS                                           | GBU15A | GBU15B | GBU15D | GBU15G | GBU15J | GBU15K | GBU15M |
|-------------------------------------------------------------------|----------------|------|-----------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub> | V    | IFM=7.5A                                                  | 1.0    |        |        |        |        |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>R</sub> | μA   | T <sub>j</sub> =25°C                                      | 5      |        |        |        |        |        |        |
|                                                                   |                |      | T <sub>j</sub> =125°C                                     | 100    |        |        |        |        |        |        |
| Typical junction capacitance                                      | C <sub>j</sub> | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 64     |        |        |        |        |        |        |

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

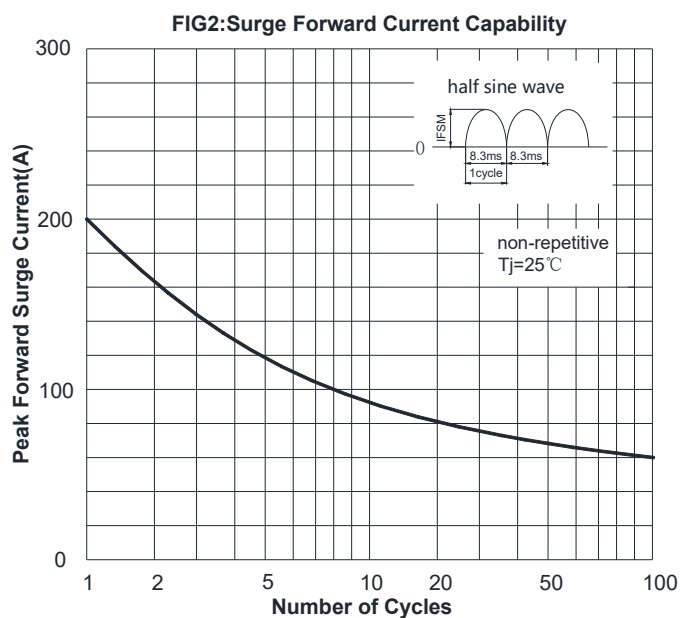
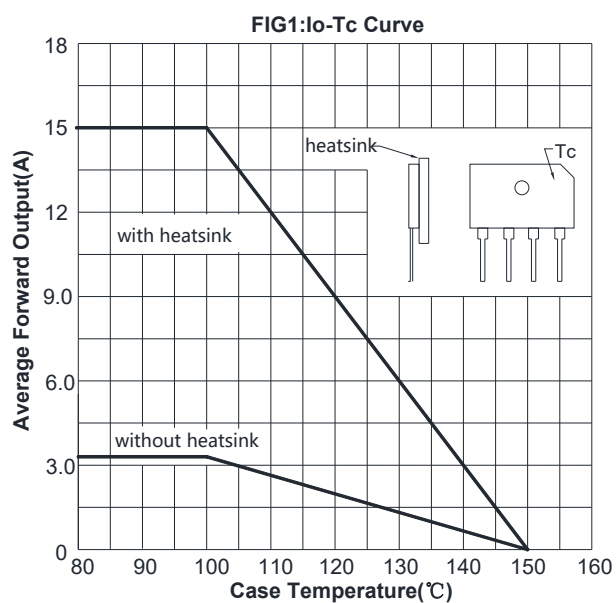
| PARAMETER                  |                                                | SYMBOL            | UNIT | GBU15A | GBU15B | GBU15D | GBU15G | GBU15J | GBU15K | GBU15M |
|----------------------------|------------------------------------------------|-------------------|------|--------|--------|--------|--------|--------|--------|--------|
| Typical Thermal Resistance | Between junction and ambient, Without heatsink | R <sub>θJ-A</sub> | °C/W | 25     |        |        |        |        |        |        |
|                            | Between junction and case, With heatsink       | R <sub>θJ-C</sub> |      | 2      |        |        |        |        |        |        |

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

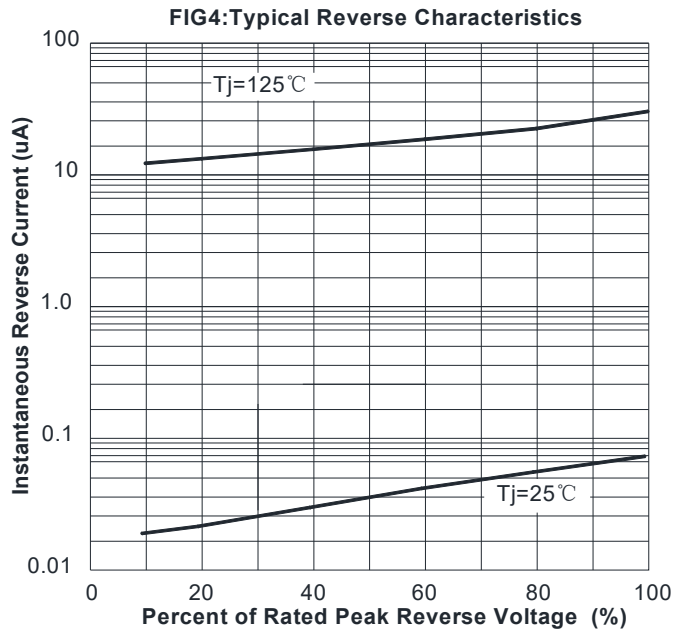
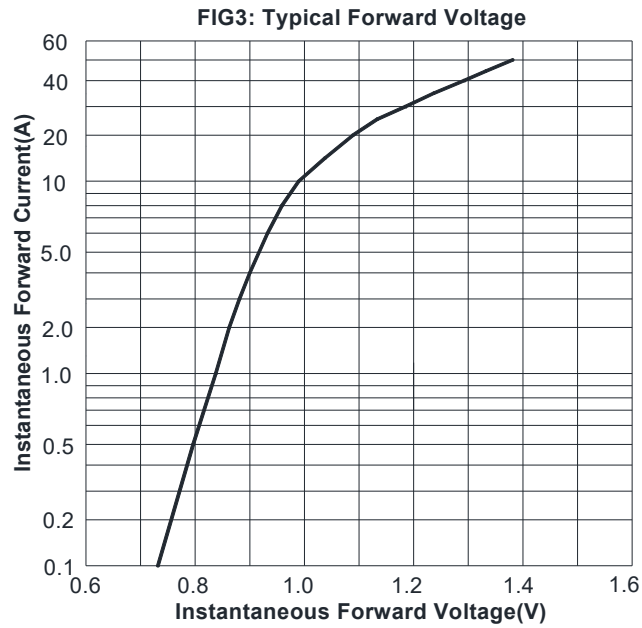
## ■Ordering Information (Example)

| PREFERRED P/N   | PACKING CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| GBU15A ~ GBU15M | B1           | Approximate 3.65 | 20                   | 1000                    | 2000                       | TUBE          |
| GBU15A ~ GBU15M | A1           | Approximate 3.65 | 250                  | 250                     | 4000                       | BOX           |

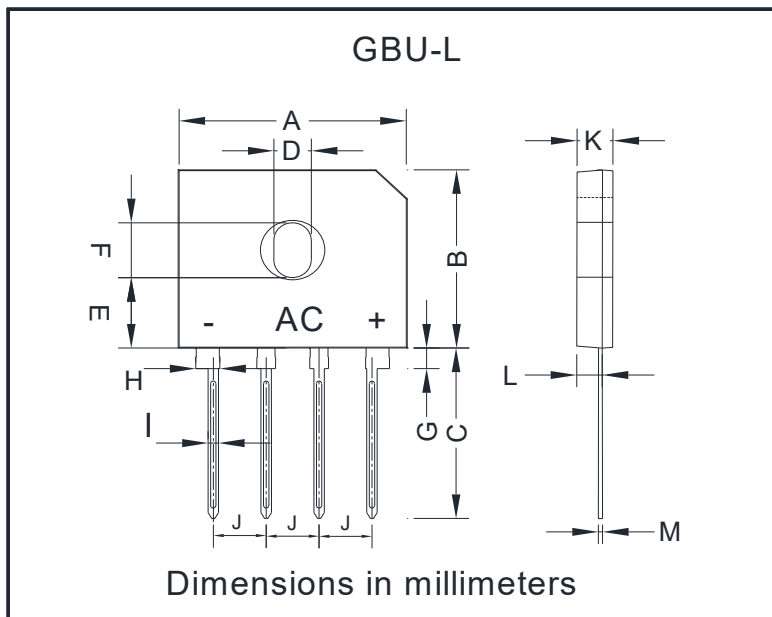
## ■ Characteristics (Typical)



## GBU15A THRU GBU15M



### ■ Outline Dimensions



| GBU-L |       |       |
|-------|-------|-------|
| 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     | 0.88  | 1.12  |
| J     | 4.83  | 5.33  |
| K     | 3.30  | 3.56  |
| L     | 2.40  | 2.66  |
| M     | 0.30  | 0.50  |

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