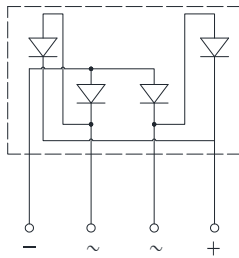
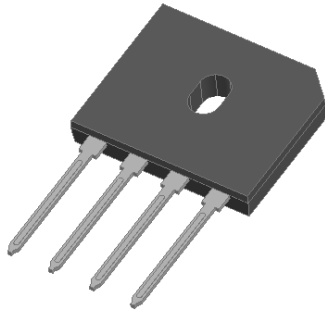


## Super Fast Recovery Bridge Rectifiers



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

| PARAMETER  | SYMBOL           | UNIT             | EGBU1006                                 |
|--|------------------|------------------|--|
| Device marking code  |                  |                  | EGBU1006                                 |
| Maximum Repetitive Peak Reverse Voltage  | V <sub>RRM</sub> | V                | 600                                      |
| Maximum RMS Voltage  | V <sub>RMS</sub> | V                | 420                                      |
| Maximum DC blocking Voltage  | V <sub>DC</sub>  | V                | 600                                      |
| Average rectified output current @60Hz half sine wave, R-load                              | I <sub>O</sub>   | A                | With heatsink<br>T <sub>c</sub> =100°C   |
|  |                  |                  | Without heatsink<br>T <sub>a</sub> =25°C |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C | I <sub>FSM</sub> | A                | 175                                      |
| Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode                | I <sup>2</sup> t | A <sup>2</sup> S | 127                                      |
| Storage temperature  | T <sub>stg</sub> | °C               | -55 ~ +150                               |
| Junction temperature   | T <sub>j</sub>   | °C               | -55 ~ +150                               |
| Dielectric strength @ Terminals to case, AC 1 minute                                       | V <sub>dis</sub> | KV               | 2.5                                      |
| Mounting torque @Recommend torque: 5kg·cm  | Tor              | kg·cm            | 8  |

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

| PARAMETER   | SYMBOL          | UNIT | TEST CONDITIONS  | EGBU1006 |
|---|-----------------|------|--|----------|
| Maximum reverse recovery time                                     | T <sub>RR</sub> | ns   | I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A | 35       |
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub>  | V    | I <sub>FM</sub> =5.0A  | 1.7      |
| 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          | 54       |



# EGBU1006

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

| PARAMETER          |   | SYMBOL            | UNIT | EGBU1006 |
|--------------------|---|-------------------|------|----------|
| Thermal Resistance | Between junction and ambient,<br>Without heatsink | R <sub>θJ-A</sub> | °C/W | 20       |
|                    | Between junction and case,<br>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)   | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|-----------------------|-------------------------|----------------------------|---------------|
| EGBU1006      | B1           | Approximate 3.96 | 20                    | 1000                    | 2000                       | TUBE          |

## ■ Characteristics (Typical)

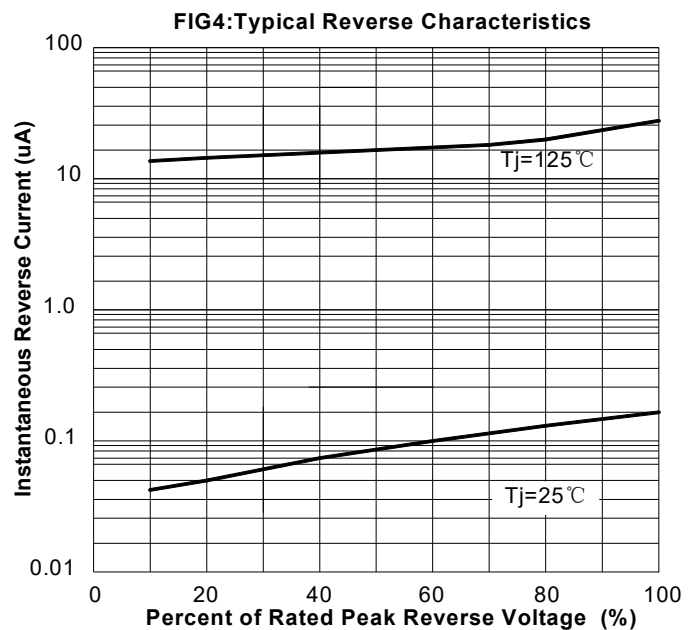
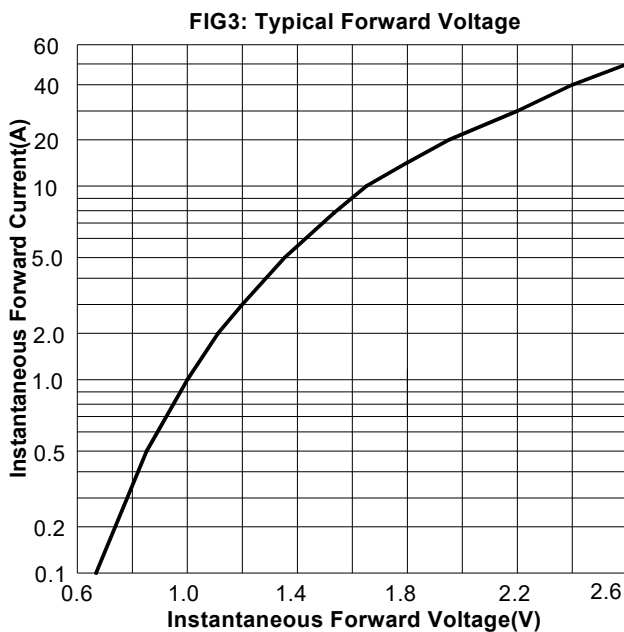
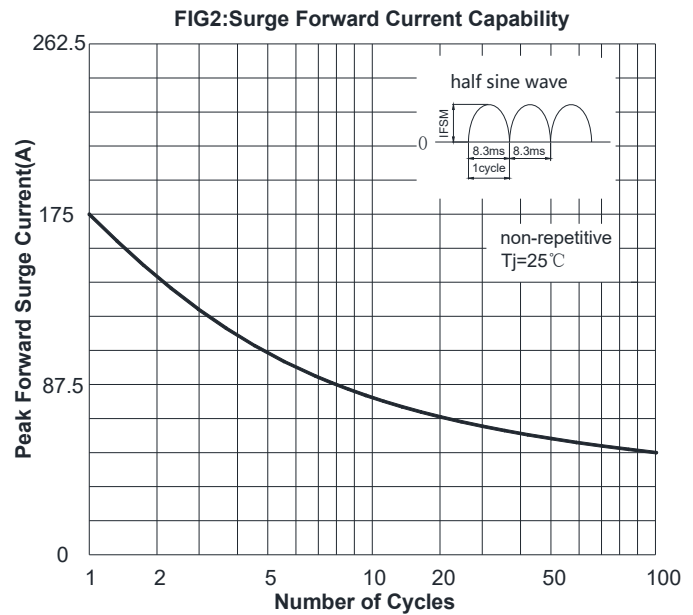
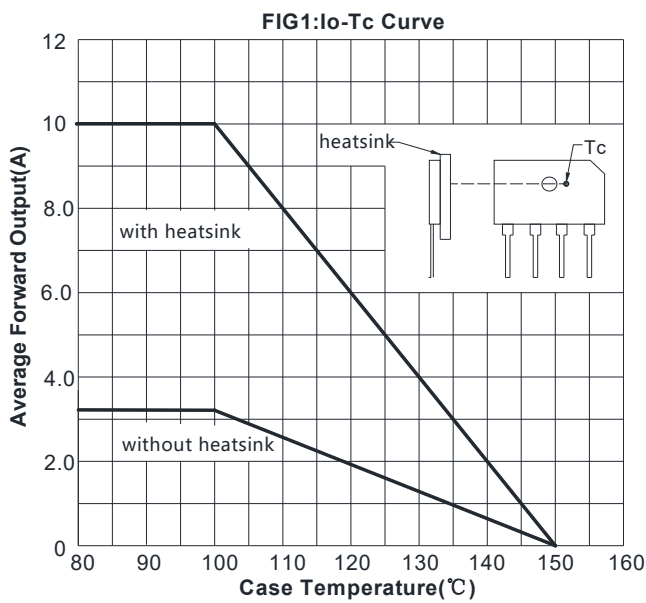
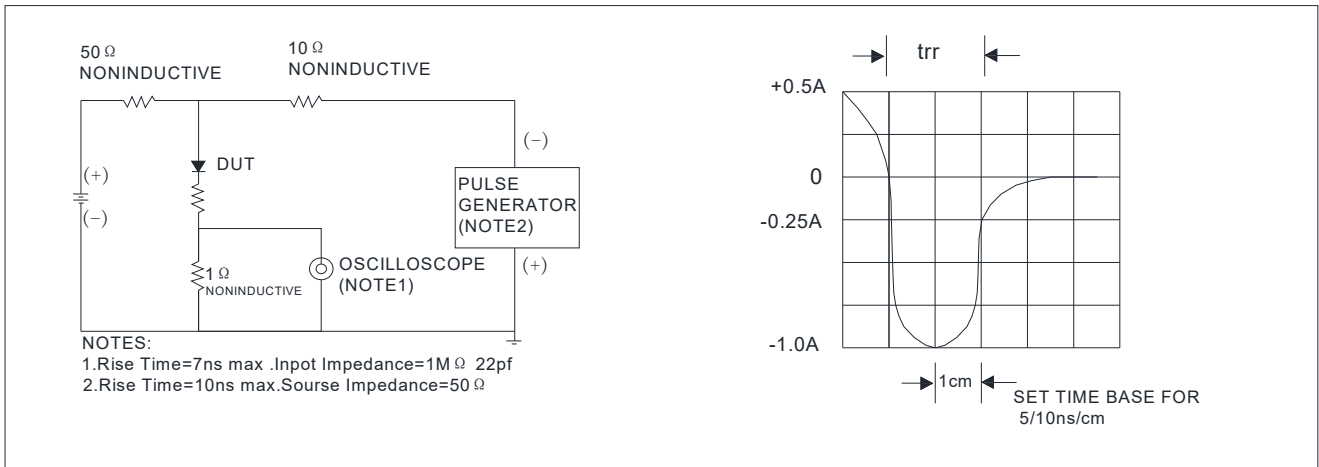
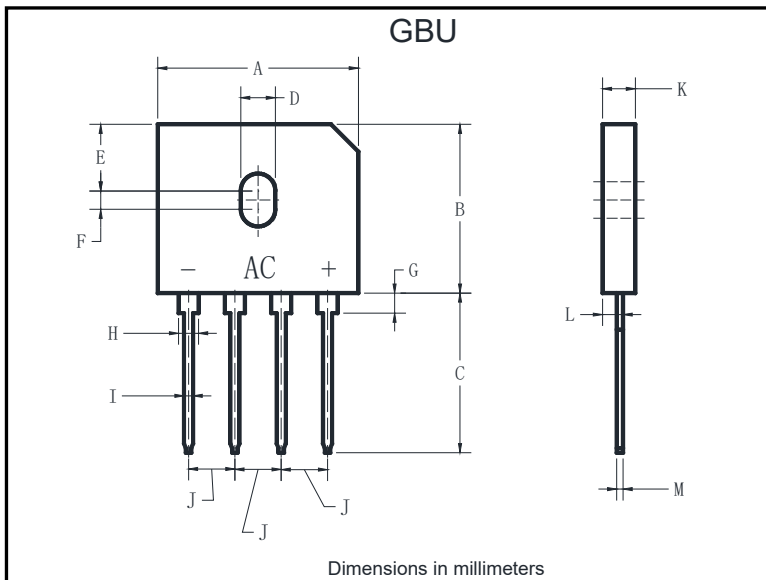


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



## ■ 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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