

### / Descriptions

50~1000V

8.0A GBU

Glass Passivated Bridge Rectifiers, Reverse Voltage:50~1000V,Forward Current:8.0A,GBU package.

### / Features

PCB

UL

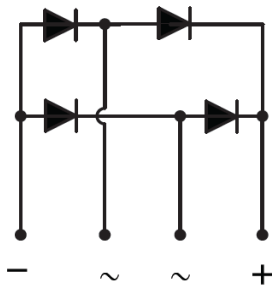
94V-0

Ideal for printed circuit board, Case material molded plastic, The plastic material has U/L flammability classification 94V-0. Halogen free product.

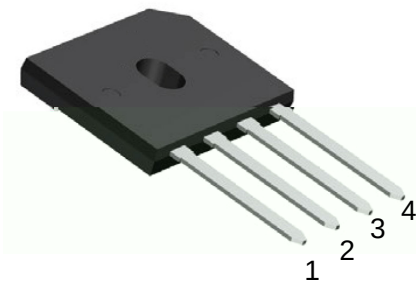
### / Applications

General purpose.

### / Equivalent Circuit



### / Pinning



PIN1 DC- PIN2 AC PIN 3 AC PIN 4 DC+

### / h<sub>FE</sub> Classifications & Marking

See Marking Instructions

## / Absolute Maximum Ratings(Ta=25 )

| Parameter                                                                                         | Symbol           | Rating      |          |          |          |          |          |          | Unit             |
|---------------------------------------------------------------------------------------------------|------------------|-------------|----------|----------|----------|----------|----------|----------|------------------|
|                                                                                                   |                  | GBU 8005G   | GBU 801G | GBU 802G | GBU 804G | GBU 806G | GBU 808G | GBU 810G |                  |
| Maximum Recurrent Peak Reverse Voltage                                                            | $V_{RRM}$        | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                |
| Maximum RMS Voltage                                                                               | $V_{RMS}$        | 35          | 70       | 140      | 280      | 420      | 560      | 700      | V                |
| Maximum DC Blocking Voltage                                                                       | $V_{DC}$         | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                |
| Maximum Average Forward Rectified Current(with heatsink Note 2)                                   | $I_{F(AV)}$      | 8           |          |          |          |          |          |          | A                |
| Maximum Average Forward Rectified Current @T <sub>C</sub> =100 (without heatsink)                 |                  | 3.2         |          |          |          |          |          |          | A                |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method) | $I_{FSM}$        | 220         |          |          |          |          |          |          | A                |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)                                                      | $I^2t$           | 166         |          |          |          |          |          |          | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element(Note1)                                                   | CJ               | 86          |          |          |          |          |          |          | pF               |
| Typical Thermal Resistance (Note2)                                                                | $R_{\theta Jc}$  | 1.6         |          |          |          |          |          |          | /W               |
| Operating Temperature Range                                                                       | T <sub>j</sub>   | -55 to +150 |          |          |          |          |          |          |                  |
| Storage Temperature Range                                                                         | T <sub>stg</sub> | -55 to +150 |          |          |          |          |          |          |                  |

NOTE:

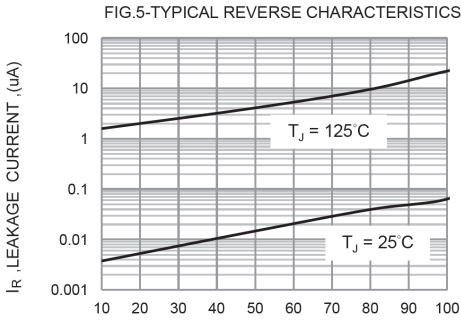
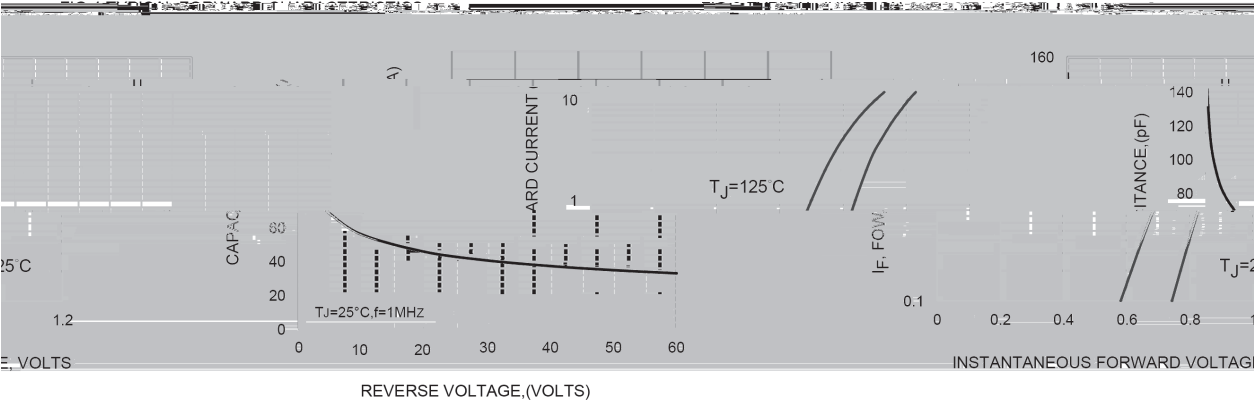
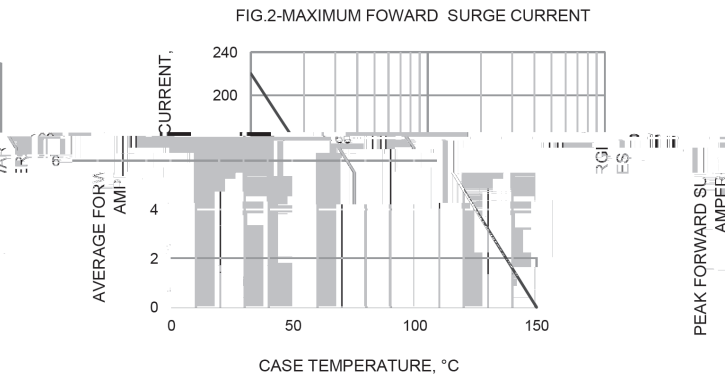
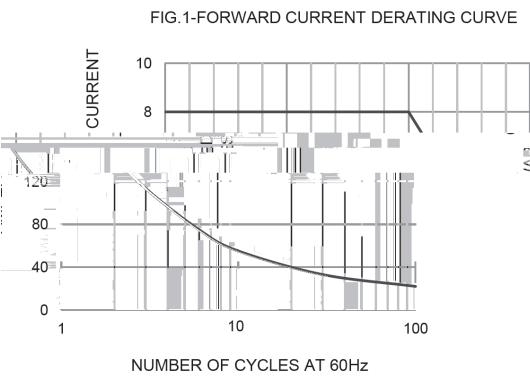
1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Device mounted on 150mm\*150mm\*1.6mm Cu Plate Heatsink.

## / Electrical Characteristics(Ta=25 )

| Parameter                                               | Symbol | Test Conditions     | Rating | Unit |
|---------------------------------------------------------|--------|---------------------|--------|------|
| Maximum Forward Voltage                                 | $V_F$  | $I_F=4.0A$          | 1.0    | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $I_R$  | T <sub>a</sub> =25  | 5.0    | μA   |
|                                                         |        | T <sub>a</sub> =125 | 500    |      |

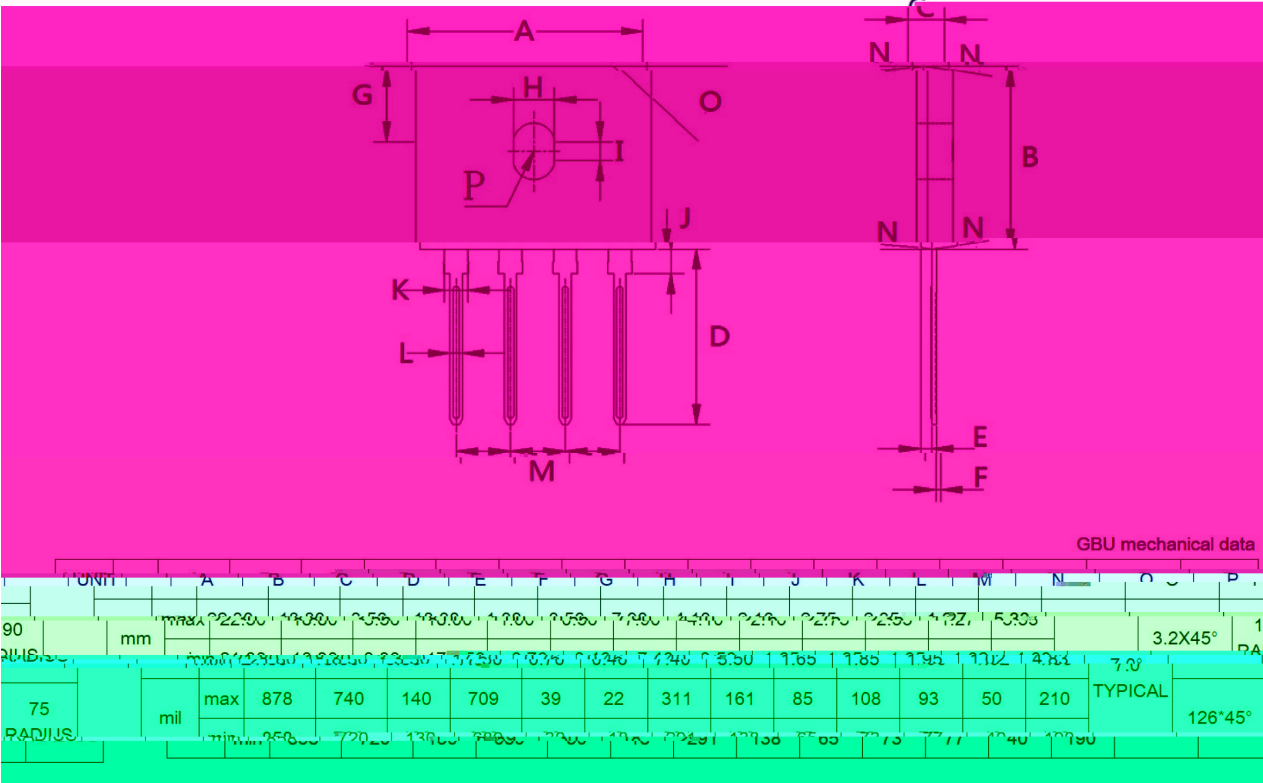
/ Electrical Characteristic Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

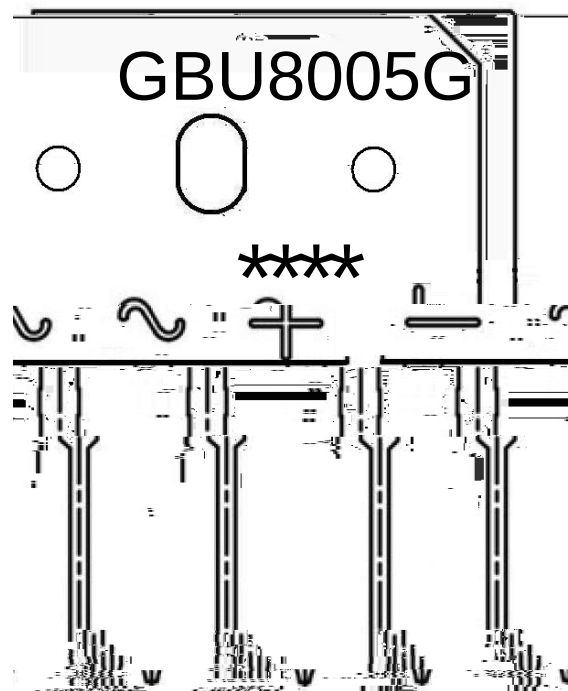
/ Package Dimensions

GBU Package Outline Dimensions





/ Marking Instructions



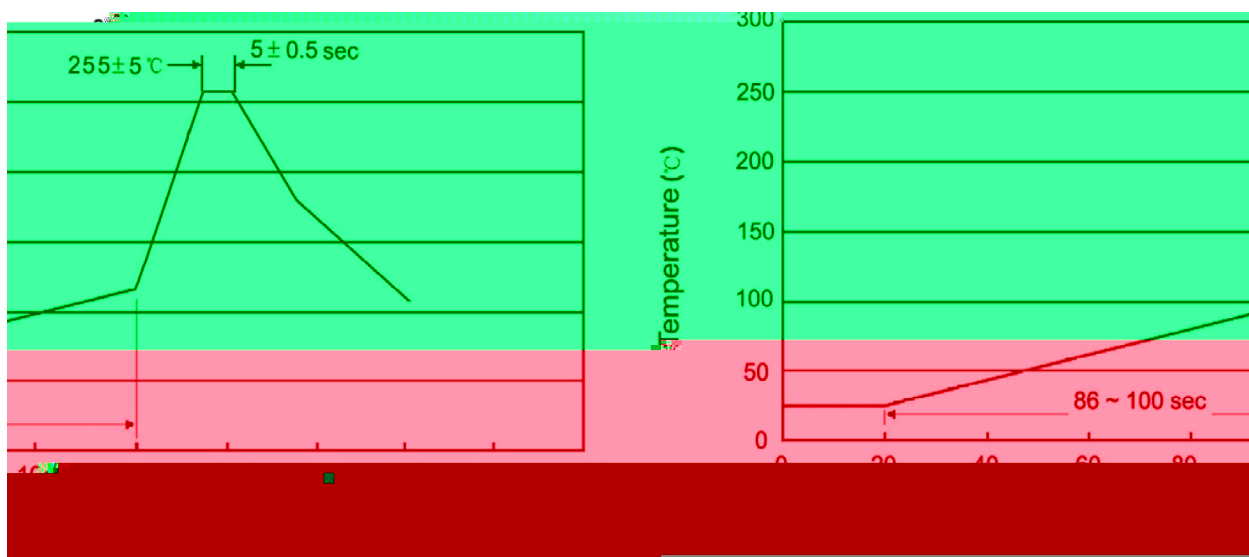
GBU8005G

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Note:

GBU8005G: Product Type.

\*\*\*\*: Lot No. Code, code change with Lot No.


**( ) / Temperature Profile for Dip Soldering(Pb-Free)**


Note:

- 1            25   150            60   90sec;
- 2            255±5            5±0.5sec;
- 3                    2   10   /sec.

- 1.Preheating:25~150   , Time:60~90sec.
- 2.Peak Temp.:255±5   , Duration:5±0.5sec.
3. Cooling Speed: 2~10   /sec.

**/ Resistance to Soldering Heat Test Conditions**

270±5

10±1 sec.

Temp.:270±5

Time:10±1 sec

**/ Packaging SPEC.**

/ BULK

| Package Type | Units          |                     |                      |                            |                      | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|----------------|---------------------|----------------------|----------------------------|----------------------|-----------------------------------|------------|-------------|
|              | Units/Bag<br>/ | Bags/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Bag                               | Inner Box  | Outer Box   |
| GBU          | -              | -                   | 350                  | 10                         | 3500                 | -                                 | 314×106×39 | 330×242×237 |

**/ Notices**