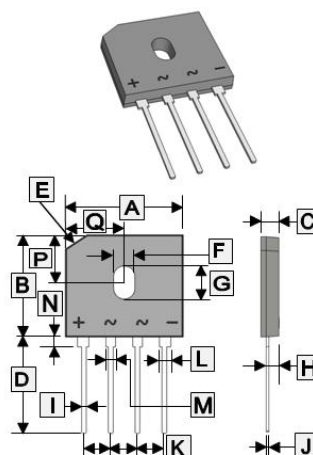


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Surge overload rating -175 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has Underwriters Laboratory flammability classification 94V-0
- Mounting position: Any

GBU



| REF. | Millimeter |       | REF. | Millimeter |       |
|------|------------|-------|------|------------|-------|
|      | Min.       | Max.  |      | Min.       | Max.  |
| A    | 21.80      | 22.20 | I    | 0.9        | 1.2   |
| B    | 18.30      | 19.10 | J    | 0.46       | 0.56  |
| C    | 3.37       | 3.53  | K    | 4.80       | 5.30  |
| D    | 17.27      | 18.29 | L    | 2.16       | 2.54  |
| E    | 3.2 x 45°  |       | M    | 1.65       | 2.03  |
| F    | 3.40       | 4.10  | N    | 1.45       | 1.85  |
| G    | 5.40       | 5.90  | P    | 9.80       | 10.20 |
| H    | 2.30       | 2.70  | Q    | 10.90      | 11.10 |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

| Parameter                                                                                          |                       | Symbol                            | Part Number |         |         |         |         |         |         | Unit             |
|----------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|-------------|---------|---------|---------|---------|---------|---------|------------------|
|                                                                                                    |                       |                                   | GBU 6005    | GBU 601 | GBU 602 | GBU 604 | GBU 606 | GBU 608 | GBU 610 |                  |
| Maximum Recurrent Peak Reverse Voltage                                                             |                       | V <sub>RRM</sub>                  | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Maximum RMS Bridge Input Voltage                                                                   |                       | V <sub>RMS</sub>                  | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V                |
| Maximum DC Blocking Voltage                                                                        |                       | V <sub>DC</sub>                   | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Maximum Average Forward (with heat sink) <sup>2</sup>                                              |                       | I <sub>(AV)</sub>                 | 6           |         |         |         |         |         |         | A                |
| Rectified Current T <sub>C</sub> =100°C (without heat sink)                                        |                       |                                   | 2.8         |         |         |         |         |         |         |                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method) |                       | I <sub>FSM</sub>                  | 175         |         |         |         |         |         |         | A                |
| Maximum Forward Voltage @ 3.0A                                                                     |                       | V <sub>F</sub>                    | 1.1         |         |         |         |         |         |         | V                |
| Maximum Reverse Current at Rated DC Blocking Voltage                                               | T <sub>J</sub> =25°C  | I <sub>R</sub>                    | 10          |         |         |         |         |         |         | μA               |
|                                                                                                    | T <sub>J</sub> =125°C |                                   | 500         |         |         |         |         |         |         |                  |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)                                                       |                       | I <sup>2</sup> t                  | 127         |         |         |         |         |         |         | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element <sup>1</sup>                                              |                       | C <sub>J</sub>                    | 50          |         |         |         |         |         |         | pF               |
| Typical Thermal Resistance                                                                         |                       | R <sub>θJC</sub>                  | 2.2         |         |         |         |         |         |         | °C/W             |
| Operating and Storage temperature range                                                            |                       | T <sub>J</sub> , T <sub>STG</sub> | -55~150     |         |         |         |         |         |         | °C               |

Notes :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm\*75mm\*1.6mm Cu plate heat sink.

## RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

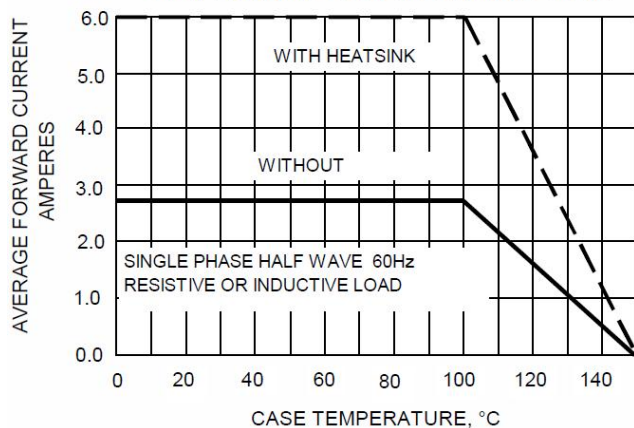


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

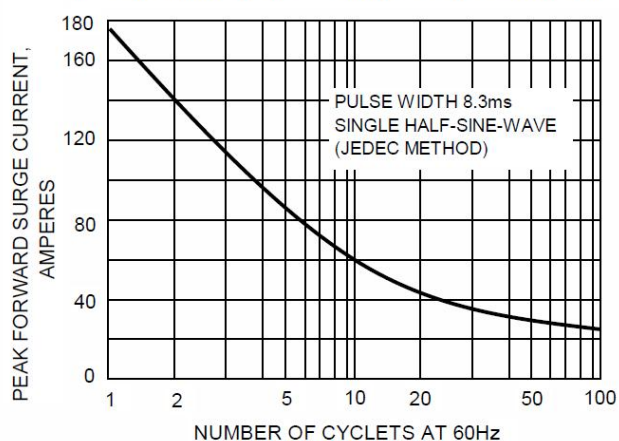


FIG.3-TYPICAL JUNCTION CAPACITANCE

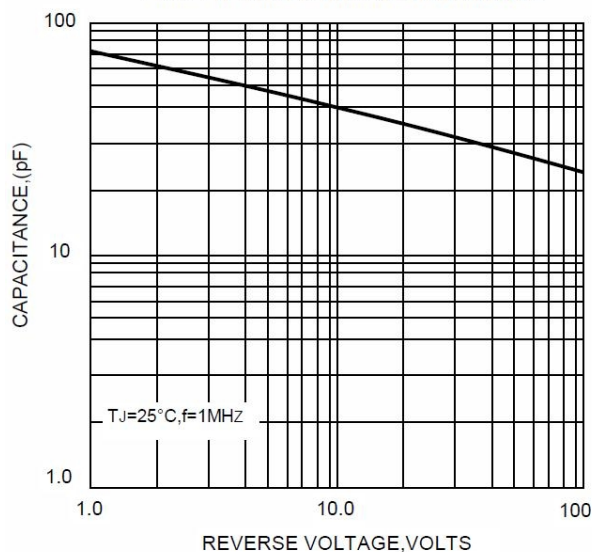


FIG.4-TYPICAL FORWARD CHARACTERISTICS

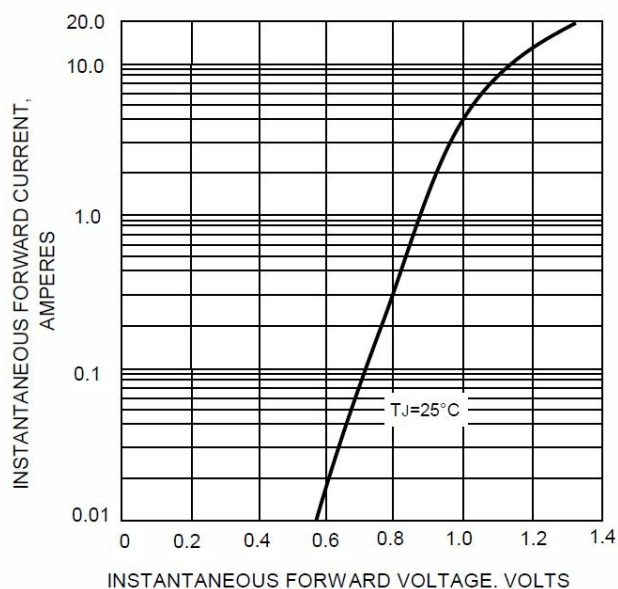


FIG.5-TYPICAL REVERSE CHARACTERISTICS

