

### ■ Features

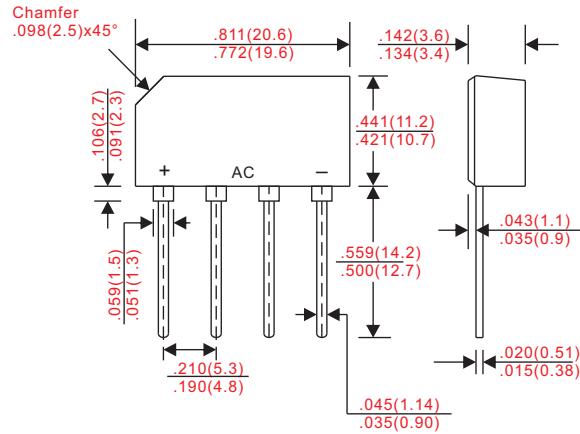
- Recommended for non-automatic applications.
- Ideal for & save space on printed circuit board.
- Applicable for automatic insertion.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen-free part, ex. GBL4005G.
- Lead-free parts meet RoHS requirements.

### ■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, GBL
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Weight : Approximated 2.0 gram

### ■ Outline

GBL



Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter                 | Conditions   | Symbol    | MIN. | TYP. | MAX. | UNIT |
|---------------------------|--|-----------|------|------|------|------|
| Forward rectified current | $T_A = 50^\circ\text{C}$   | $I_O$     |      |      | 4.0  | A    |
| Forward surge current     | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$ |      |      | 125  | A    |
| Reverse current           | $V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$                             | $I_R$     |      |      | 10   | uA   |
|                           | $V_R = V_{RRM}$ $T_A = 100^\circ\text{C}$                            |           |      |      | 1000 |      |
| Storage temperature       |  | $T_{STG}$ | -55  |      | +150 | °C   |

| Symbol  | Marking code | Max. repetitive peak reverse voltage $V_{RRM}$ (V) | Max. RMS voltage $V_{RMS}$ (V) | Max. DC blocking voltage $V_R$ (V) | Max. forward voltage @4A, $T_A = 25^\circ\text{C}$ $V_F$ (V) | Operating temperature $T_J$ (°C) |
|---------|--------------|--|--------------------------------|------------------------------------|--|----------------------------------|
| GBL4005 | GBL005       | 50   | 35                             | 50                                 | 1.1  | -55 ~ +150                       |
| GBL401  | GBL01        | 100  | 70                             | 100                                |  |                                  |
| GBL402  | GBL02        | 200  | 140                            | 200                                |  |                                  |
| GBL404  | GBL04        | 400  | 280                            | 400                                |  |                                  |
| GBL406  | GBL06        | 600  | 420                            | 600                                |  |                                  |
| GBL408  | GBL08        | 800  | 560                            | 800                                |  |                                  |
| GBL410  | GBL10        | 1000   | 700                            | 1000                               |  |                                  |

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

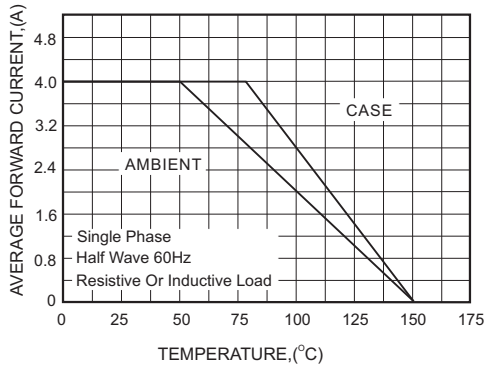


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

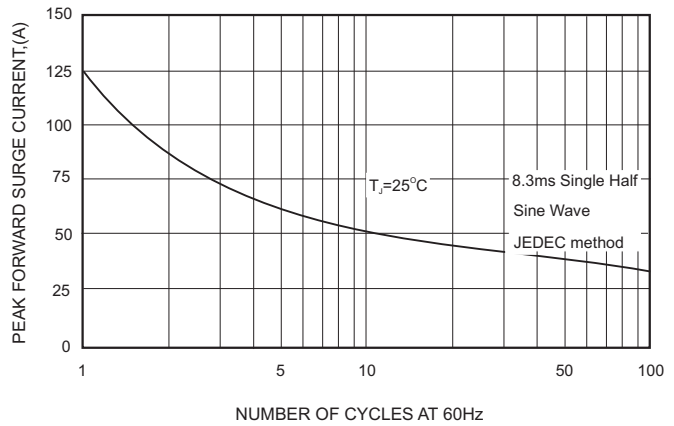


FIG.3-TYPICAL FORWARD CHARACTERISTICS

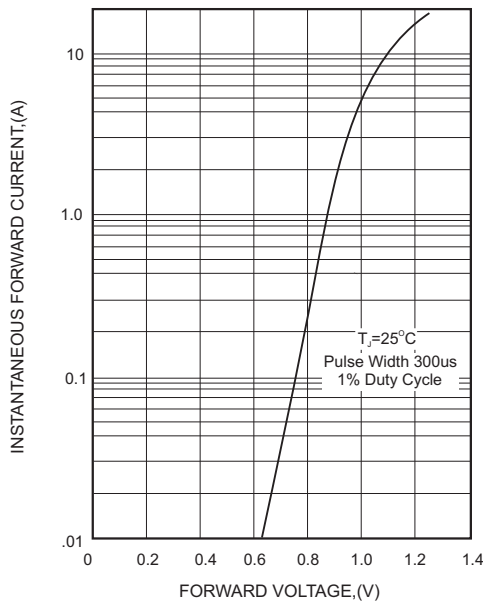
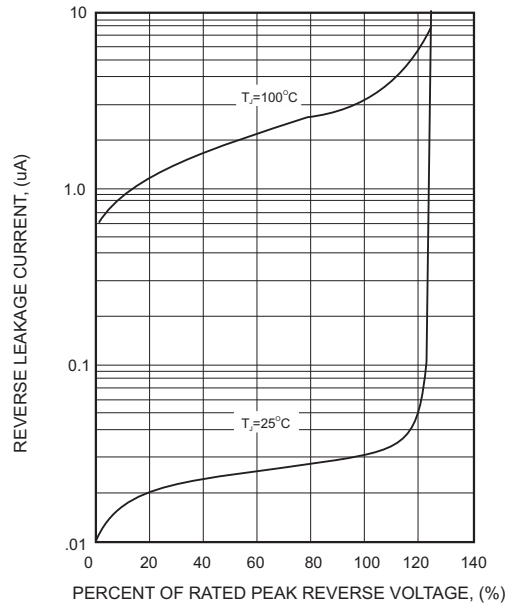


FIG.4-TYPICAL REVERSE CHARACTERISTICS



- CITC reserves the right to make changes to this document and its products and specifications at any time without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- CITC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CITC assume any liability for application assistance or customer product design.
- CITC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of CITC.
- CITC products are not authorized for use as critical components in life support devices or systems without express written approval of CITC.