

■ Features

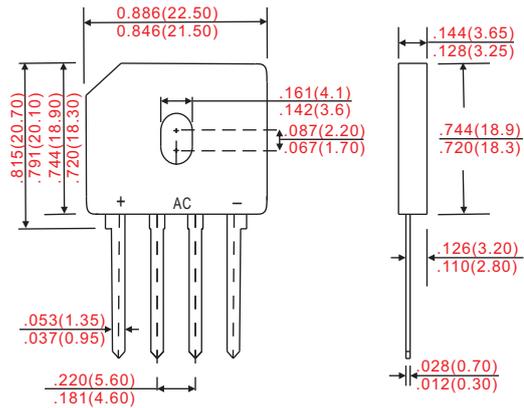
- Surge overload ratings to 200 amperes peak.
- Recommended for non-automatic applications.
- Ideal for & save space on printed circuit board.
- Applicable for automatic insertion.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen-free part, ex. GBU10005G.
- Lead-free parts meet RoHS requirements.

■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, GBU
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Weight : Approximated 4.0 gram

■ Outline

GBU



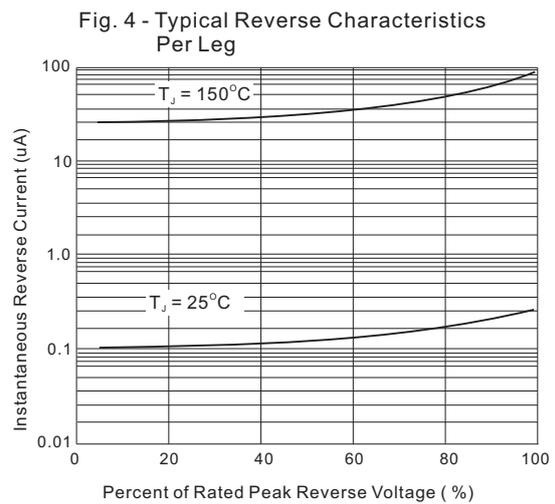
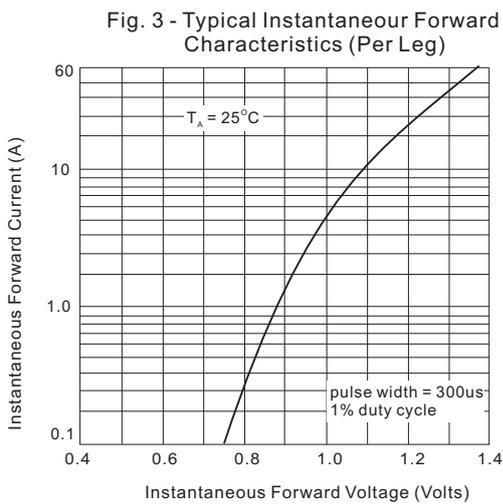
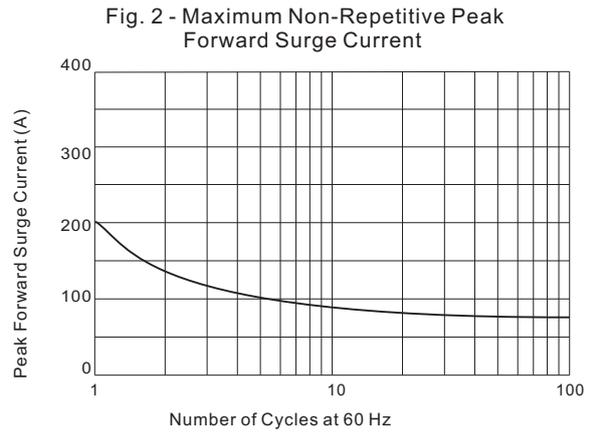
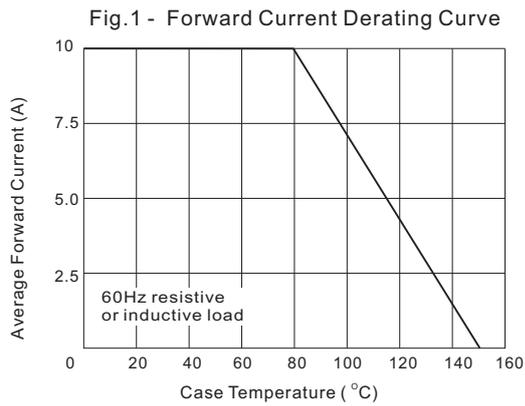
■ Maximum ratings and electrical characteristics

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 | with heatsink $T_c = 80^\circ\text{C}$ | I_o | | | 10 | A |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | | 200 | A |
| Reverse current | $V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$ | I_R | | | 10 | uA |
| | $V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$ | | | | 500 | |
| Current squared time | $t < 8.3\text{ms}$, $T_j = 25^\circ\text{C}$ | I^2t | | | 166 | A^2S |
| Thermal resistance | junction to ambient | R_{BJA} | | | 25 | $^\circ\text{C}/\text{W}$ |
| Storage temperature | | T_{STG} | -55 | | +150 | $^\circ\text{C}$ |

| 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 @5A, $T_A = 25^\circ\text{C}$ V_F (V) | Operating temperature T_j ($^\circ\text{C}$) |
|----------|--------------|--|--------------------------------|------------------------------------|--|--|
| GBU10005 | GBU10005 | 50 | 35 | 50 | 1.1 | -55 ~ +150 |
| GBU1001 | GBU1001 | 100 | 70 | 100 | | |
| GBU1002 | GBU1002 | 200 | 140 | 200 | | |
| GBU1004 | GBU1004 | 400 | 280 | 400 | | |
| GBU1006 | GBU1006 | 600 | 420 | 600 | | |
| GBU1008 | GBU1008 | 800 | 560 | 800 | | |
| GBU1010 | GBU1010 | 1000 | 700 | 1000 | | |

■ Rating and characteristic curves



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