

■ Features

- Surge overload ratings to 350 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. GBJ25005G.
- Lead-free parts meet RoHS requirements.

■ Mechanical data

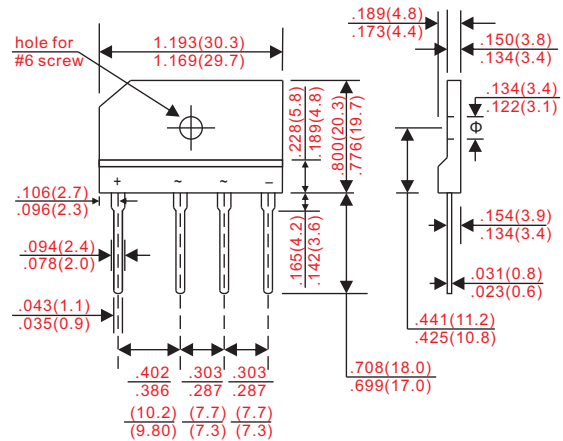
- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, GBJ
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any
- Weight : Approximated 7.00 gram

■ 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%.

■ Outline

GBJ



Dimensions in inches and (millimeters)

| Parameter | Conditions | Symbol | MIN. | TYP. | MAX. | UNIT |
|---------------------------|--|-----------|------|------|------|------------------|
| Forward rectified current | with heatsink $T_c = 98^\circ\text{C}$ | I_o | | | 25 | A |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | | 350 | 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 | | | 508 | A ² S |
| Thermal resistance | junction to ambient | R_{BJA} | | | 22 | °C/W |
| 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 @ 12.5A, $T_A = 25^\circ\text{C}$ V_F (V) | Operating temperature T_j (°C) |
|----------|--------------|--|--------------------------------|------------------------------------|--|----------------------------------|
| GBJ25005 | GBJ25005 | 50 | 35 | 50 | 1.1 | -55 ~ +150 |
| GBJ2501 | GBJ2501 | 100 | 70 | 100 | | |
| GBJ2502 | GBJ2502 | 200 | 140 | 200 | | |
| GBJ2504 | GBJ2504 | 400 | 280 | 400 | | |
| GBJ2506 | GBJ2506 | 600 | 420 | 600 | | |
| GBJ2508 | GBJ2508 | 800 | 560 | 800 | | |
| GBJ2510 | GBJ2510 | 1000 | 700 | 1000 | | |

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

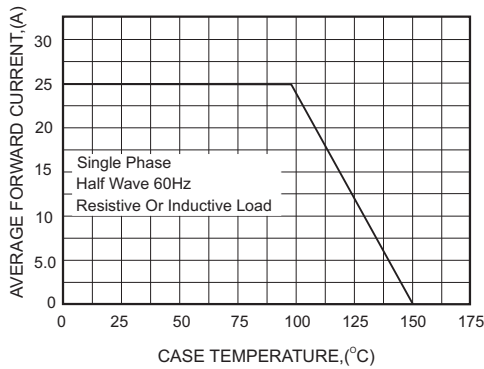


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

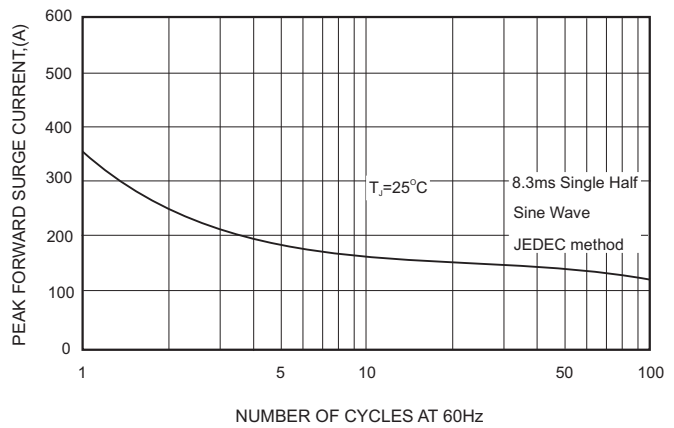


Fig. 3 - Typical Instantaneous Forward Characteristics (Per Leg)

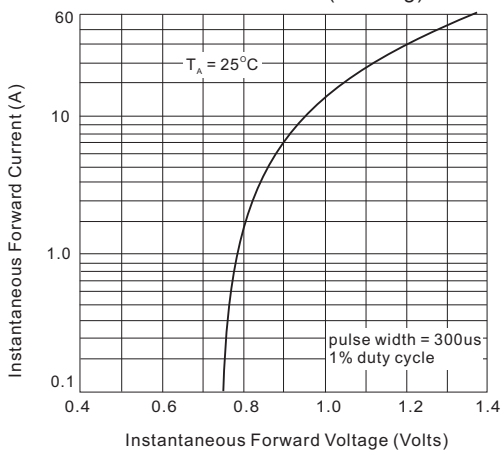
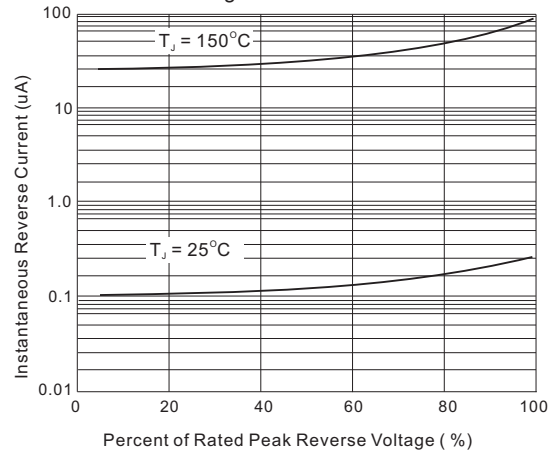


Fig. 4 - Typical Reverse Characteristics Per Leg



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