



## GBJ3506 THRU GBJ3510

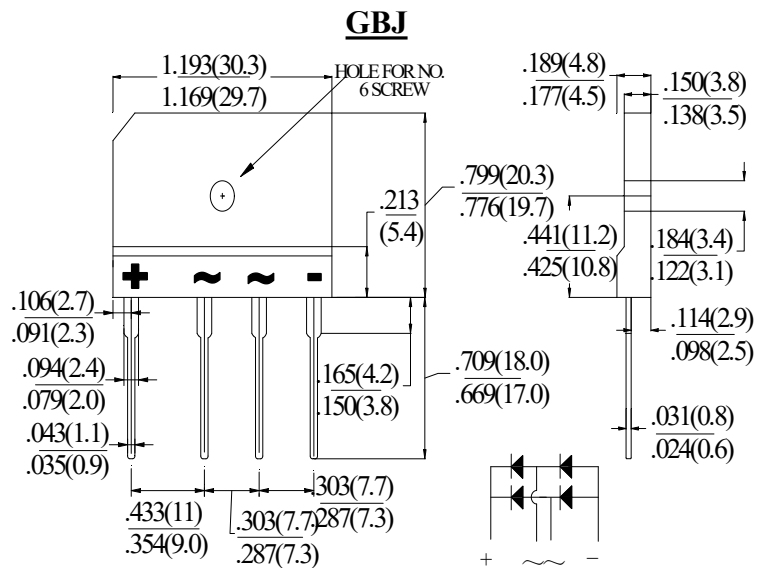
### SINGLE PHASE 35.0AMPS.GLASS PASSIVATED BRIDGE RECTIFIERS

#### FEATURE

- . UL Listed Under Recognized Component Index, File Number E338195
- . High case dielectric strength
- . Low Reverse Leakage Current
- . High surge current capability
- . Ideal for Printed Circuit Board Applications

#### MECHANICAL DATA

- . Case Material: Molded Plastic.
- . UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free.
- . Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Molded on Body
- . Mounting: Through Hole for #6 Screw
- . Mounting Torque: 5.0 in-lbs Maximum
- . RoHS 2.0 Compliant
- . Halogen free



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

| Type Number   | SYM BOL     | GBJ3506       | GBJ3508 | GBJ3510 | units                     |
|---|-------------|---------------|---------|---------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$   | 600           | 800     | 1000    | V                         |
| Maximum RMS Voltage   | $V_{RMS}$   | 420           | 560     | 700     | V                         |
| Maximum DC blocking Voltage   | $V_{DC}$    | 600           | 800     | 1000    | V                         |
| Maximum Average Forward (with heatsink Note2)<br>Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink) | $I_{F(AV)}$ | 35.0<br>4.2   |         |         | A                         |
| Peak Forward Surge Current 8.3ms single half<br>sine-wave superimposed on rate load (JEDEC<br>method)           | $I_{FSM}$   | 350           |         |         | A                         |
| Maximum Forward Voltage<br>Drop per element @17.5 A DC  | $V_F$       | 1.1           |         |         | V                         |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_J=125^\circ\text{C}$   | $I_R$       | 10.0<br>500.0 |         |         | $\mu\text{A}$             |
| $I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )   | $I^2t$      | 510           |         |         | $\text{A}^2\text{Sec}$    |
| Typical Junction Capacitance (Note 1)   | $C_J$       | 90            |         |         | pF                        |
| Typical Thermal Resistance (Note 2)   | $R_{(JC)}$  | 1.0           |         |         | $^\circ\text{C}/\text{W}$ |
|   | $R_{(JA)}$  | 18.0          |         |         |                           |
| Storage Temperature   | $T_{STG}$   | -55 to +150   |         |         | $^\circ\text{C}$          |
| Operating Junction Temperature  | $T_J$       | -55 to +150   |         |         | $^\circ\text{C}$          |

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Device mounted on 250mm x 250mm x 2.0mm Aluminum Plate Heatsink.



### RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

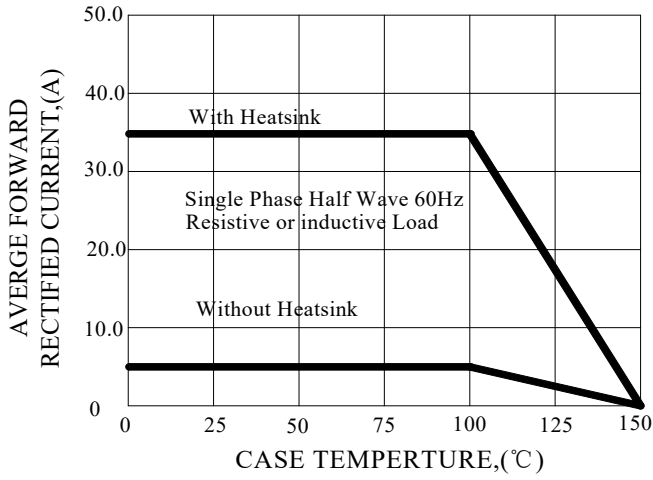


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

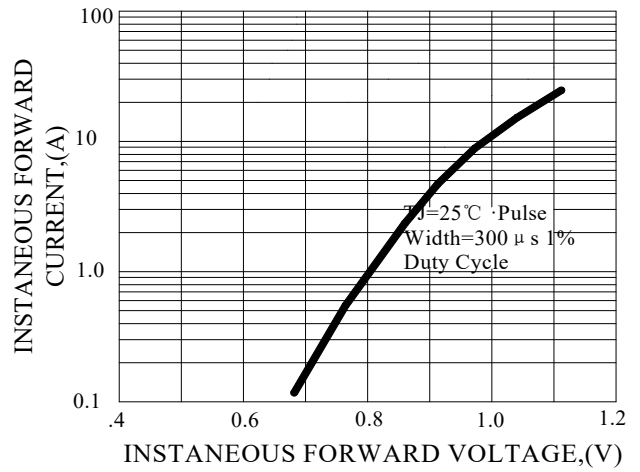


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

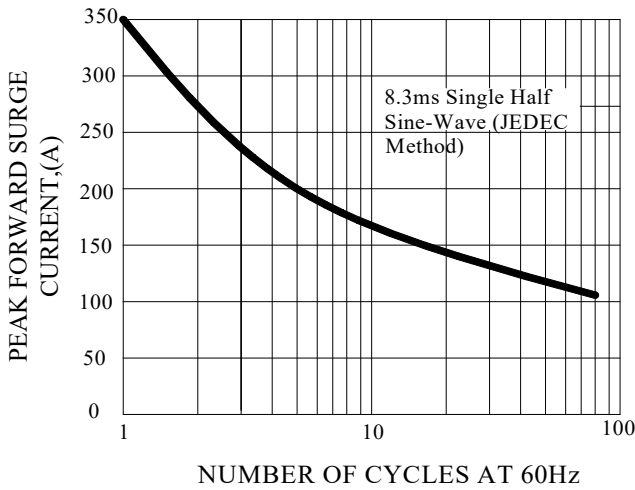


FIG.4-TYPICAL JUNCTION CAPAOTANCE

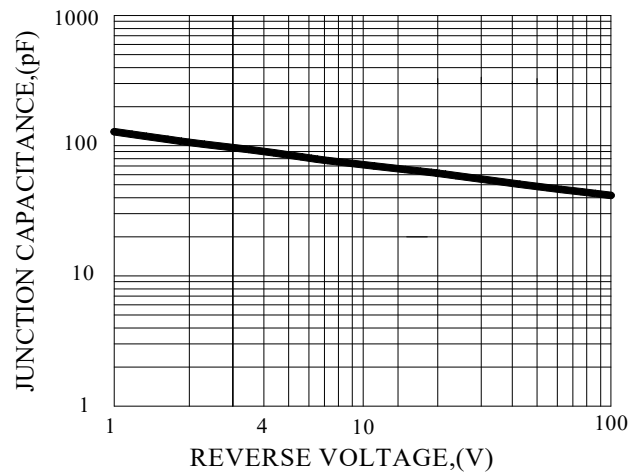
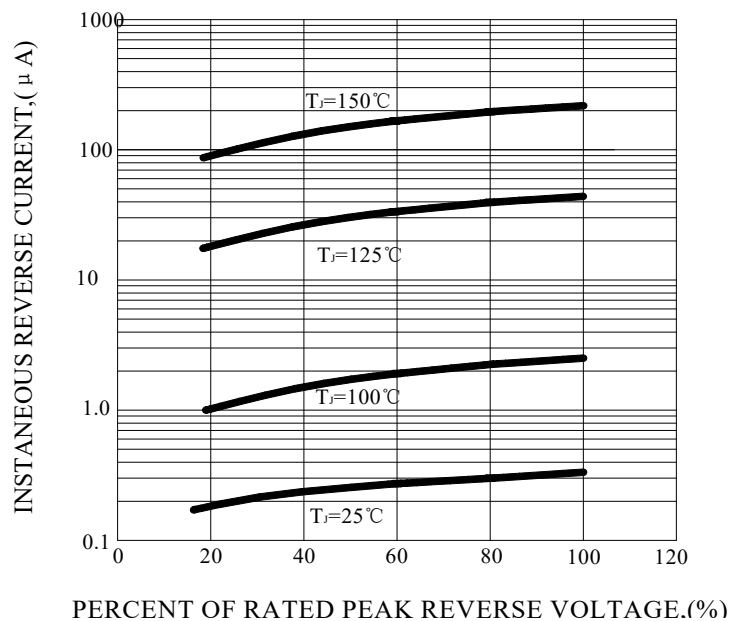


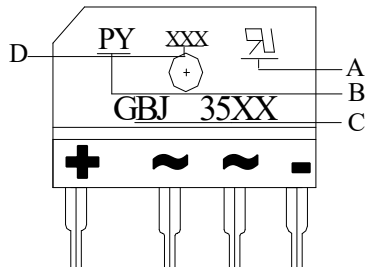
FIG.5-TYPICAL REVERSE CHARACTERISTICS





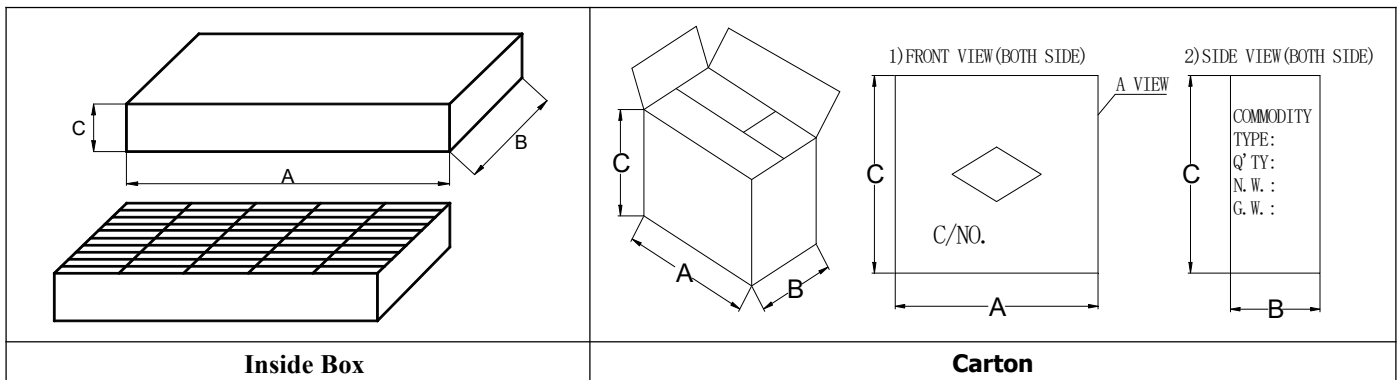
## Marking and packaging illustration

### 1、Marking



| SYMBOL | Explanation  |
|--------|--------------|
| A      | UL Mark      |
| B      | Trademark    |
| C      | Product Name |
| D      | Date Code    |

### 2、Packaging (B/P)



| OUTLINE   | A<br>(mm) | B<br>(mm) | C<br>(mm) |
|-----------|-----------|-----------|-----------|
| Inner Box | 230±3     | 155±3     | 35±3      |
| Carton    | 400±5     | 190±5     | 270±5     |

| COUNT | INSIDE BOX<br>(PCS) | CARTON<br>(PCS) |
|-------|---------------------|-----------------|
| GBJ   | 200                 | 2000            |