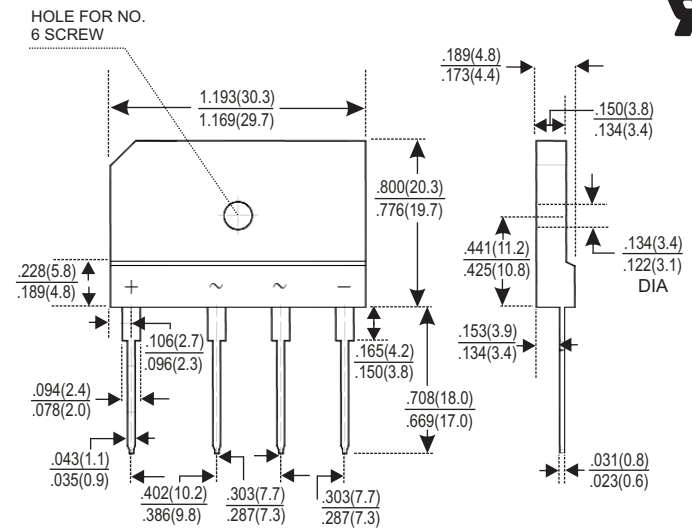


### FEATURES

- UL Recognized
- Current 50 Amps
- Voltage Range 50V ~ 1000V
- Glass passivated chip junction
- High surge forward current capability
- GBJ available in 6A, 8A, 10A, 15A, 20A, 25A, 35A and 50A

### MECHANICAL DATA

- Molded plastic body (UL 94V-0 rated)
- Mounting through hole for No. 6 screw
- Mounting Torque: recommend 5Kg • cm
- Polarity: As marked
- Lead: solder plated



GBJ

Dimensions in inches and (millimeters)

### MAXIMUM RATINGS & 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                                                                                        | Symbol          | GBJ 50005    | GBJ 5001 | GBJ 5002 | GBJ 5004 | GBJ 5006 | GBJ 5008 | GBJ 5010 | Unit               |
|--------------------------------------------------------------------------------------------------|-----------------|--------------|----------|----------|----------|----------|----------|----------|--------------------|
| Maximum Repetitive Peak Reverse Voltage                                                          | $V_{RRM}$       | 50           | 100      | 200      | 400      | 600      | 800      | 1000     | V                  |
| Maximum RMS Voltage                                                                              | $V_{RMS}$       | 35           | 70       | 140      | 280      | 420      | 560      | 700      | V                  |
| Maximum DC blocking Voltage                                                                      | $V_{DC}$        | 50           | 100      | 200      | 400      | 600      | 800      | 1000     | V                  |
| Maximum Average Forward Rectified Current, @ $T_c=100^\circ\text{C}$ (with heat sink)            | $I_O (AV)$      | 50           |          |          |          |          |          |          | A                  |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 500          |          |          |          |          |          |          | A                  |
| $I^2t$ for fusing ( $t < 8.3\text{ms}$ ), non-repetitive                                         | $I^2t$          | 1040         |          |          |          |          |          |          | $A^2S$             |
| Maximum Instantaneous Forward Voltage @25.0A                                                     | $V_F$           | 1.1          |          |          |          |          |          |          | V                  |
| Maximum DC Reverse Current at rated DC Blocking voltage Per Element                              | $I_R$           | 10           |          |          |          |          |          |          | $\mu A$            |
| Typical Thermal Resistance (Note)                                                                | $R_{\theta JC}$ | 0.5          |          |          |          |          |          |          | $^\circ\text{C/W}$ |
| Operating Temperature Range                                                                      | $T_J$           | -55 to + 150 |          |          |          |          |          |          | $^\circ\text{C}$   |
| Storage Temperature Range                                                                        | $T_{STG}$       | -55 to + 150 |          |          |          |          |          |          | $^\circ\text{C}$   |

**NOTE:** Thermal Resistance from Junction to Case, with heat sink

### RATING & CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

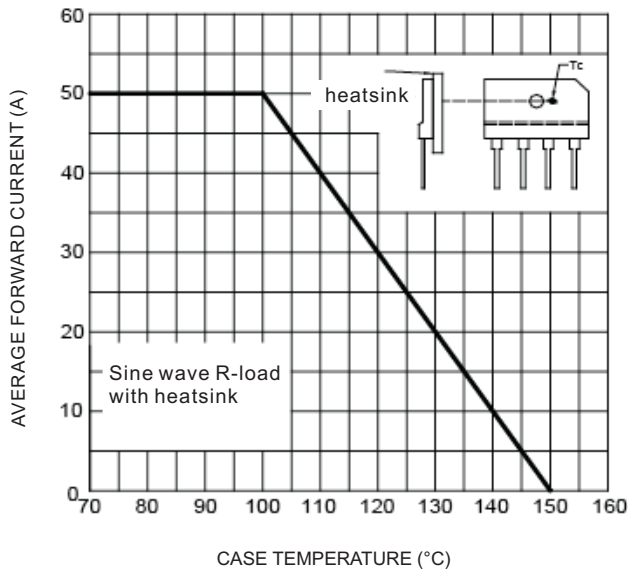


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

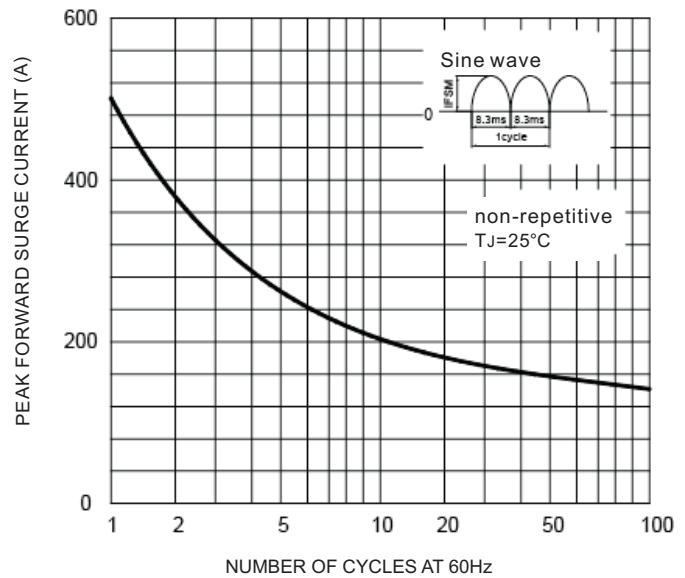


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

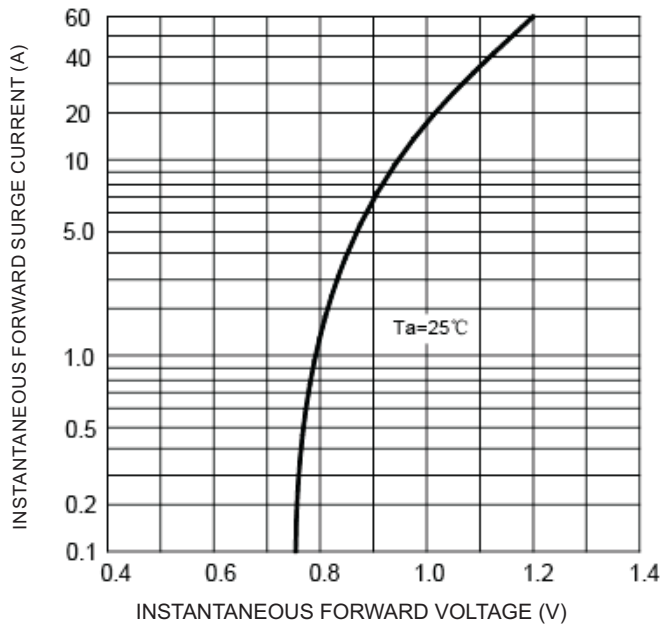


FIG.4- TYPICAL REVERSE CHARACTERISTICS

