



DATA SHEET

GBJ10A~GBJ10K

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 10.0 Amperes

FEATURES

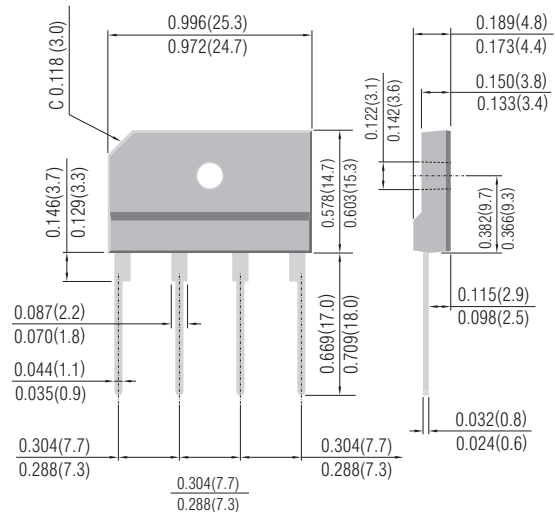
- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 200 Amperes peak
- High temperature soldering guaranteed: 260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique
 Terminals: Leads solderable per MIL-STD-202, Method 208
 Mounting position: Any
 Mounting torque: 5 in. lb. Max.
 Weight: 0.15 ounce, 4.0 grams

GBJ

Unit: inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
 For Capacitive load derate current by 20%.

| | GBJ10A | GBJ10B | GBJ10D | GBJ10G | GBJ10J | GBJ10K | UNIT |
|---|-------------|--------|--------|--------|--------|--------|--------------------------------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum RMS Input Voltage | 35 | 70 | 140 | 280 | 420 | 560 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum Average Forward $T_C=100^\circ\text{C}$ Rectified Output Current $T_A= 45^\circ\text{C}$ | 10.0 8.0 | | | | | | A |
| I^2t Rating for fusing ($t < 8.3\text{ms}$) | 166 | | | | | | A ² sec |
| Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method) | 200 | | | | | | Apk |
| Maximum Instantaneous Forward Voltage Drop per element at 5.0A | 1.0 | | | | | | Vpk |
| Maximum Reverse Leakage at rated $T_A=25^\circ$ CDc Blocking Voltage per element $T_C=100^\circ\text{C}$ | 5 500 | | | | | | μA μA |
| Typical Thermal Resistance per leg(Note 2) R θ JA | 18.0 | | | | | | $^\circ\text{C} / \text{W}$ |
| Typical Thermal Resistance per leg(Note 3) R θ JC | 3.0 | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating and Storage Temperature Range, T_J, T_{STG} | -55 to +150 | | | | | | $^\circ\text{C}$ |

NOTES:

1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
2. Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.
3. Units Mounted on a 3.0 x 3.0" x 0.11" thick (7.5 x 7.5 x 0.3cm) AL plate.

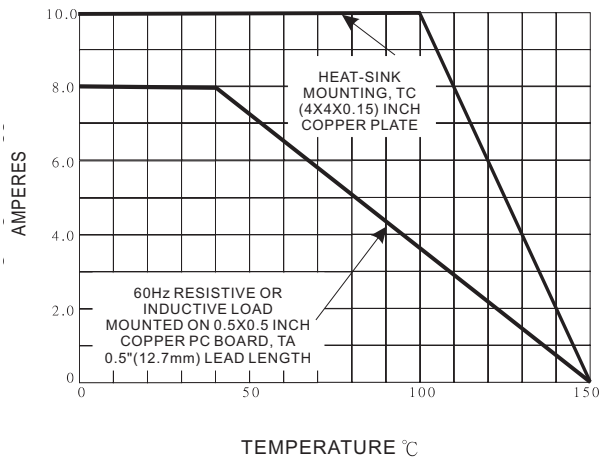


Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

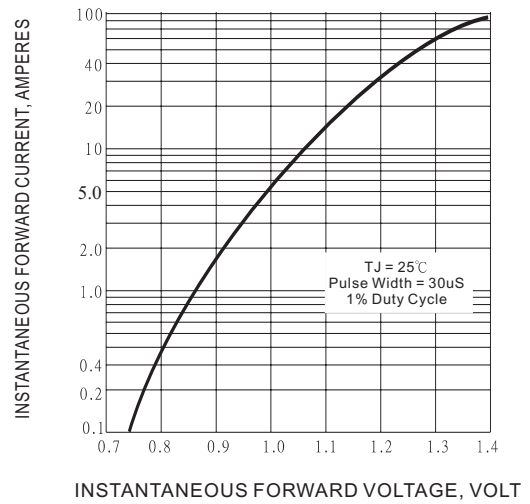


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

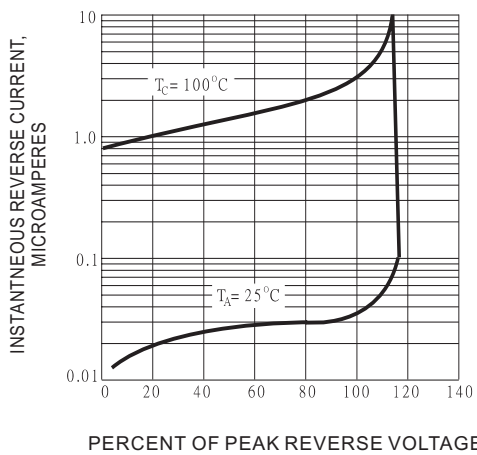


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

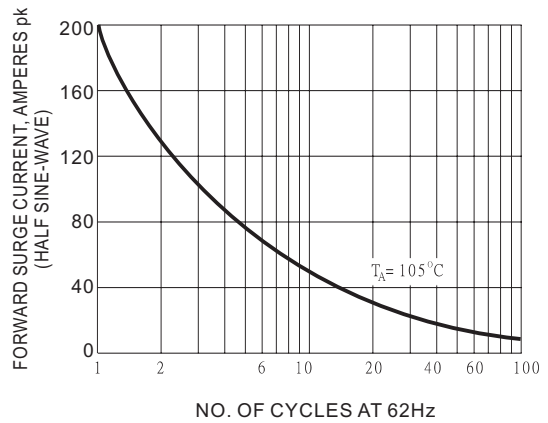


Fig.4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

