



DATA SHEET

GBJ6A~GBJ6K

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 800 Volts **CURRENT** 6.0 Ampere

Reconnized File #E228882

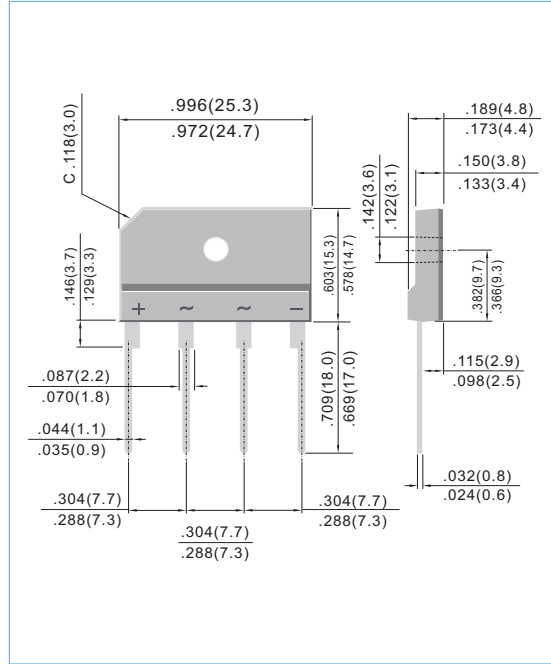
FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed:
260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension
- Both normal and Pb free product are available:
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

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%.

| PARAMETER | SYMBOL | GBJ6A | GBJ6B | GBJ6D | GBJ6G | GBJ6J | GBJ6K | UNITS |
|--|------------------------------------|--------------|-------|-------|-------|-------|-------|--------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum RMS Bridge Input Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum Average Forward Rectified Output Current at $T_C=100^\circ C$ | I_{AV} | 6.0 | | | | | | A |
| I^2t Rating for fusing ($t < 8.3ms$) | I^2t | 127 | | | | | | A^2sec |
| Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 175 | | | | | | Apk |
| Maximum Instantaneous Forward Voltage Drop per element at 3.0A | V_F | 1.0 | | | | | | Vpk |
| Maximum Reverse Leakage Current at Rated @ $T_A=25^\circ C$ Dc Blocking Voltage @ $T_A=100^\circ C$ | I_R | 5.0 500 | | | | | | μA |
| Typical Thermal Resistance per leg (Note 2) (Note 3) | $R_{\theta JA}$ $R_{\theta JC}$ | 8.6 3.1 | | | | | | $^\circ C/W$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to + 150 | | | | | | $^\circ C$ |

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 2.6 x 1.4" x 0.06" thick (6.5 x 3.5 x 0.15cm) AL plate.



RATING AND CHARACTERISTIC CURVES

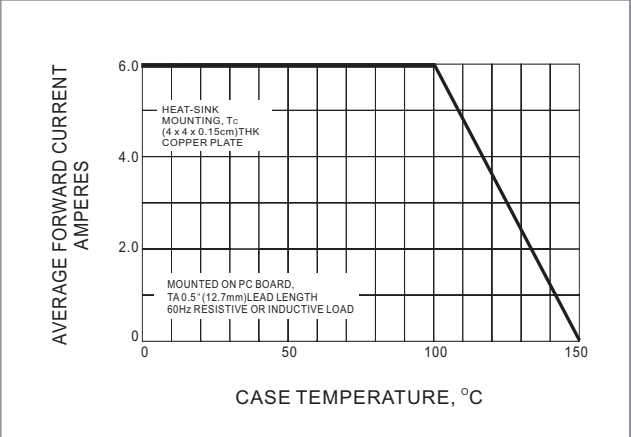


Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

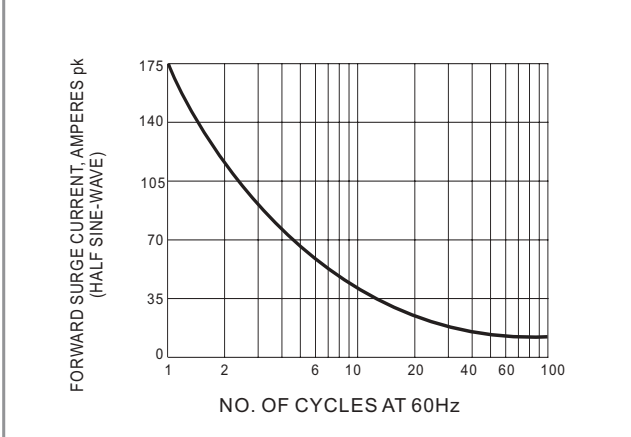


Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

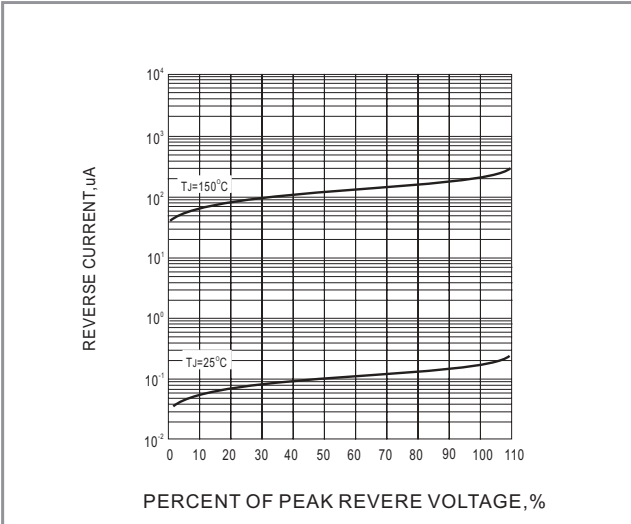


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

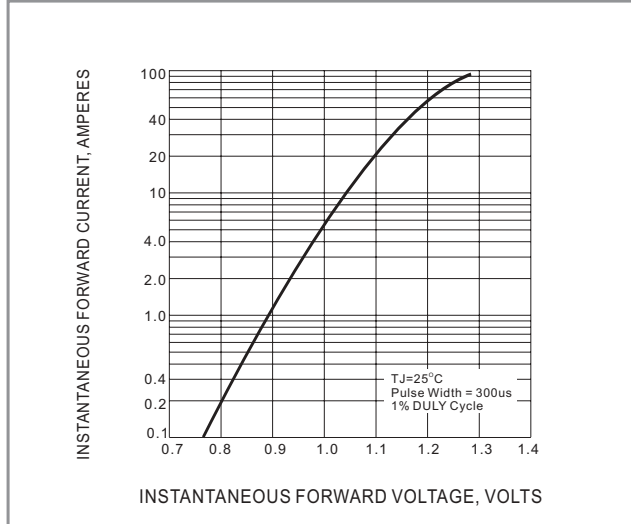


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT