



DATA SHEET

GBU6A~GBU6K

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE - 100 Volts CURRENT - 6.0 Amperes

GBU

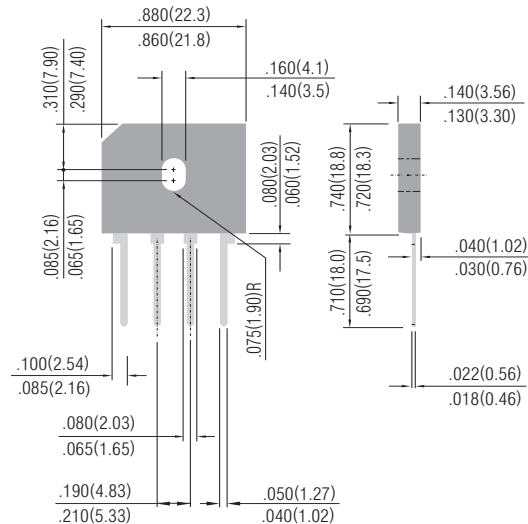
Unit: inch (mm)

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: 175 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



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%.

| | GBU6A | GBU6B | GBU6D | GBU6G | GBU6J | GBU6K | 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 at | 6.0 | | | | | | A |
| I ² t Rating for fusing ($t < 8.35\text{ms}$) | 127 | | | | | | A ² sec |
| Peak Forward Surge Current single sine-wave superimposed on rated load(JEDEC method) | 175 | | | | | | Apk |
| Maximum Instantaneous Forward Voltage Drop per element at 3.0A | 1.0 | | | | | | Vpk |
| Maximum Reverse Leakage at rated $T_A=25^\circ$ CDc Blocking Voltage per element $T_C=100^\circ\text{C}$ | 5.0 500 | | | | | | μA μA |
| Typical Thermal Resistance per leg(Note 2) R θ JA | 8.6 | | | | | | °C / W |
| Typical Thermal Resistance per leg(Note 3) R θ JC | 3.1 | | | | | | °C / W |
| Operating and Storage Temperature Range, T _J ,TSTG | -55+150 | | | | | | °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

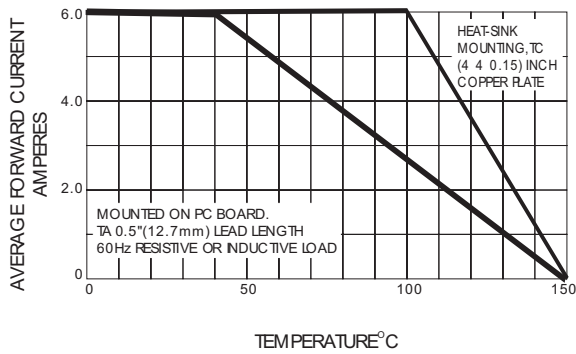


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

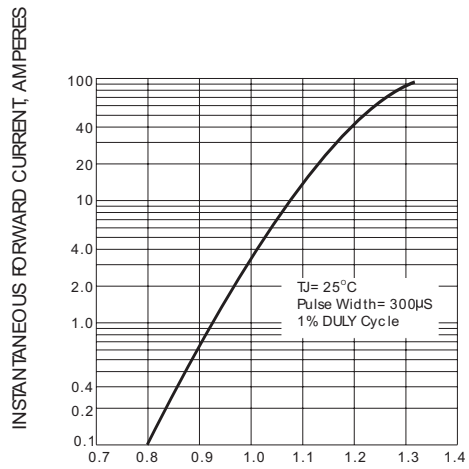


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

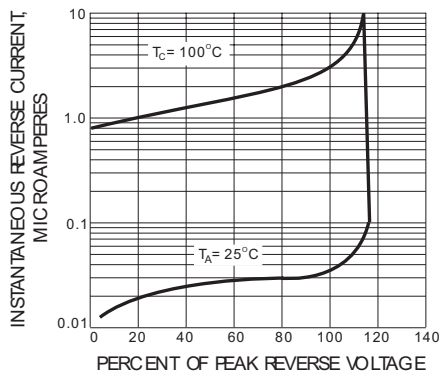


Fig. 3- TYPICAL PEAK REVERSE CHARACTERISTICS

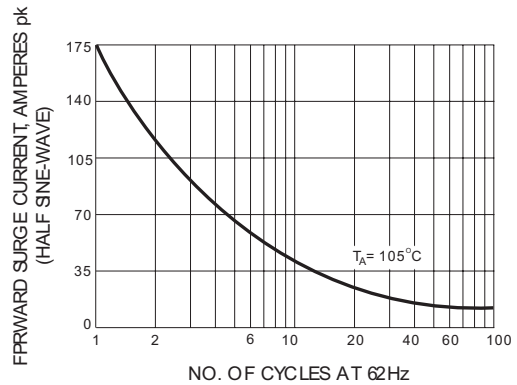


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

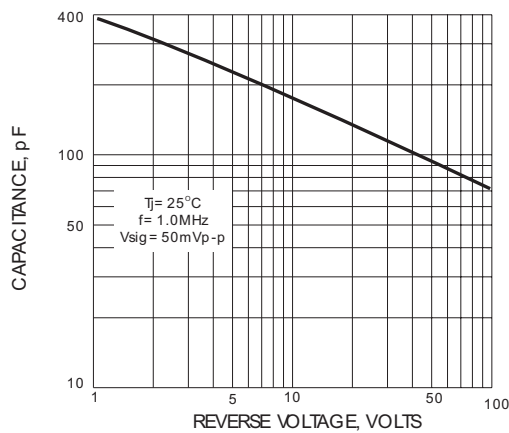


Fig. 5- TYPICAL JUNCTION CAPACITANCE PER ELEMENT