

GBU8A THRU GBU8K

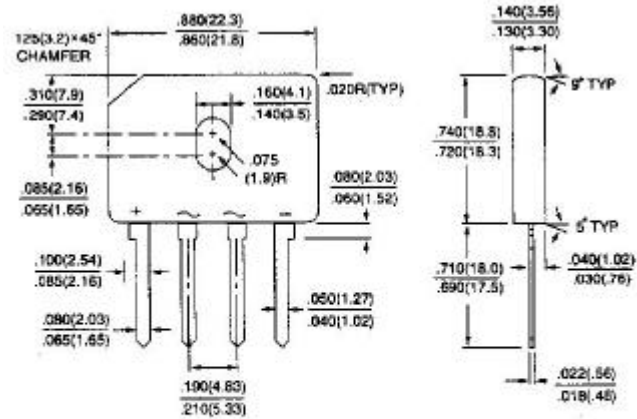
GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 8.0 Amperes

GBU

FEATURES

- Plastic package 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 /10 seconds/.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension



Dimensions in inches and (millimeters)

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 ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

For Capacitive load derate current by 20%.

| | GBU8A | GBU8B | GBU8D | GBU8G | GBU8J | GBU8K | UNITS |
|--|-------|-------|-------|-------|-------|-------|------------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | V_{RRM} |
| Maximum RMS Input Voltage | 35 | 70 | 140 | 280 | 420 | 560 | V_{RMS} |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | V_{DC} |
| Maximum Average Forward $T_C=100$ Rectified Output Current at $T_A=45$ | 8.0 | | | | | | $A_{(AV)}$ |
| | 6.0 | | | | | | $A_{(AV)}$ |
| I^2t Rating for fusing ($t < 8.3ms$) | 166 | | | | | | A^2Sec |
| Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method) | 200 | | | | | | A_{PK} |
| Maximum Instantaneous Forward Voltage Drop per element at 8.0A | 1.0 | | | | | | V_{PK} |
| Maximum Reverse Leakage at rated $T_A=25$ Dc Blocking Voltage per element $T_C=100$ | 5.0 | | | | | | A |
| | 500 | | | | | | A |
| Typical Thermal Resistance per leg (Note 2) R JA | 18.0 | | | | | | /W |
| Typical Thermal Resistance per leg (Note 3) R JL | 3.0 | | | | | | |

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 0.5×0.5" (12×12mm)copper pads.
3. Units Mounted on a 3.0×3.0" ×0.11" thick (7.5×7.5×0.3cm) AL plate heatsink.

RATING AND CHARACTERISTIC CURVES

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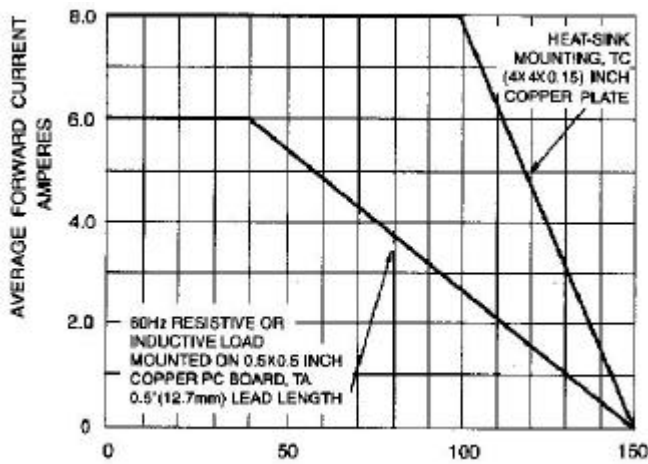


Fig. 1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

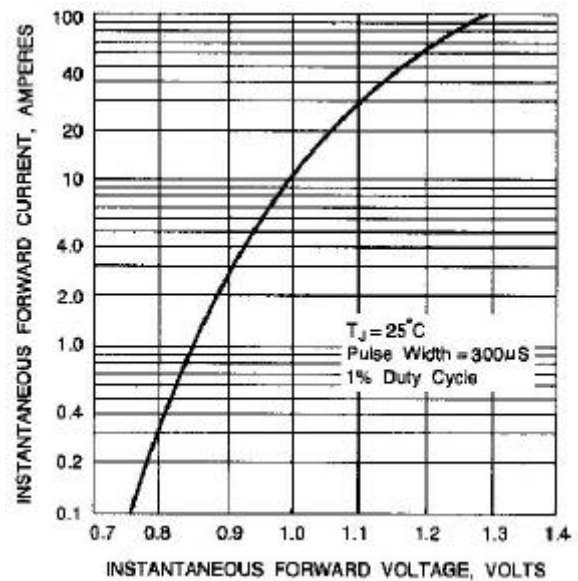


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

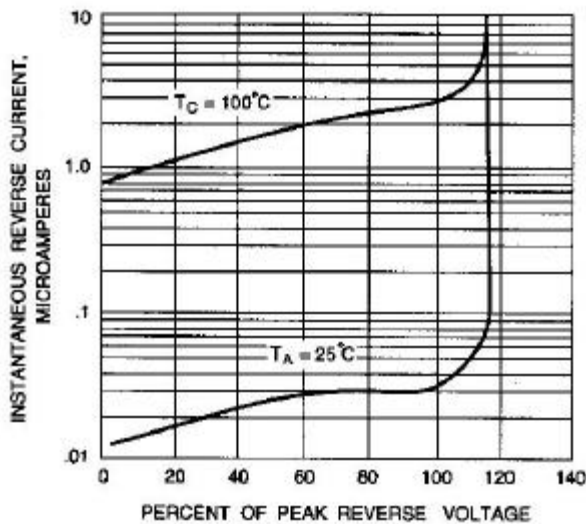


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

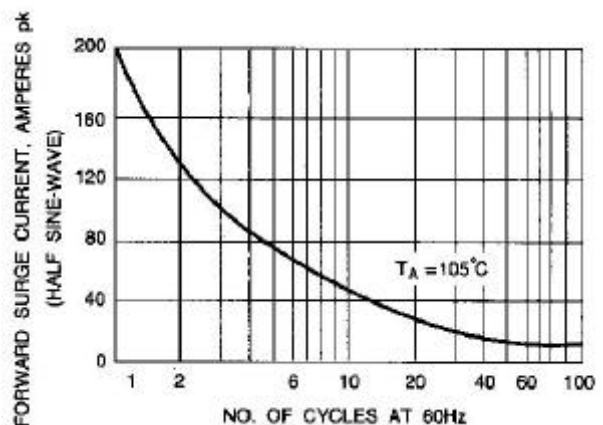


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

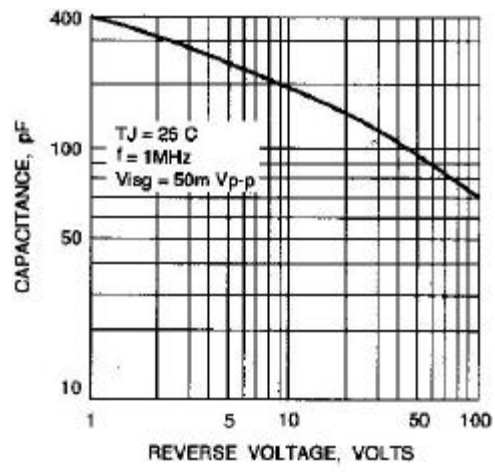


Fig. 5-TYPICAL JUNCTION CAPACITANCE PER ELEMENT