



Elektronische Bauelemente

GBU8A ~ GBU8M

VOLTAGE 50V ~ 1000V

8.0 AMP Glass Passivated Bridge Rectifiers

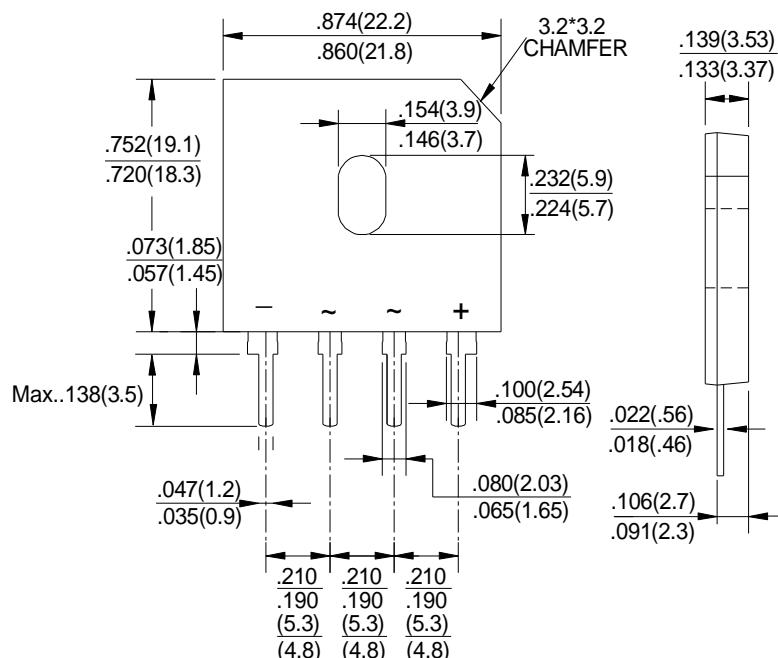


FEATURES

- Glass passivated die construction
- Ideal for printed circuit board
- High case dielectric strength of 1500VRMS
- Plastic material has underwriters laboratory flammability classification 94V-0
- Low reverse leakage current
- Surge overload rating to 200A peak
- Polarity: marked on body
- Mounting position: Any

RoHS Compliant Product
A suffix of "-C" specifies halogen-free.

LC-35



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz,

For capacitive load, derate current by 20%.

| TYPE NUMBER | SYMBOL | GBU8A | GBU8B | GBU8D | GBU8G | GBU8J | GBU8K | GBU8M | UNITS |
|---|-----------------|--------------|-------|-------|-------|-------|-------|-------|-----------------------------|
| Maximum Recurrent 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 (with heatsink Note2) Rectified Current @ $T_c=100$ (without heatsink) | $I_{(AV)}$ | 8.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half Sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 200 | | | | | | | A |
| Maximum Forward Voltage at 2.0A | V_F | 1.0 | | | | | | | V |
| Maximum DC Reverse Current $T_a=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=125\text{ }^\circ\text{C}$ | I_R | 5.0 500 | | | | | | | μA |
| I^2t Rating for fusing ($t < 8.3\text{ms}$) | I^2t | 166 | | | | | | | A^2s |
| Typical Junction Capacitance per element (Note1) | C_J | 130 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JC}$ | 2.2 | | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating Temperature Range | T_J | - 55 ~ + 150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | - 55 ~ + 150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.

● RATING AND CHARACTERISTIC CURVES

Fig. 1 – Derating Curve Output Rectified Current

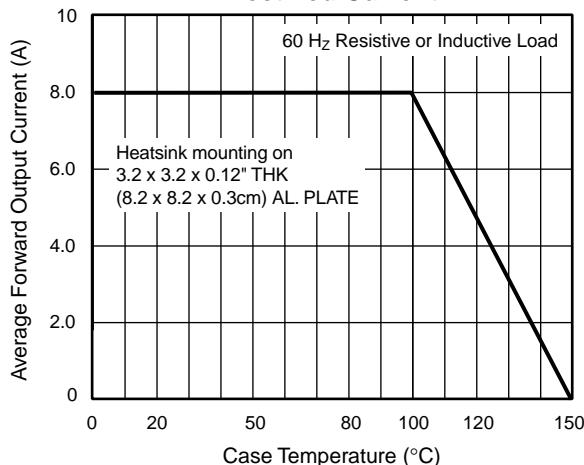


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

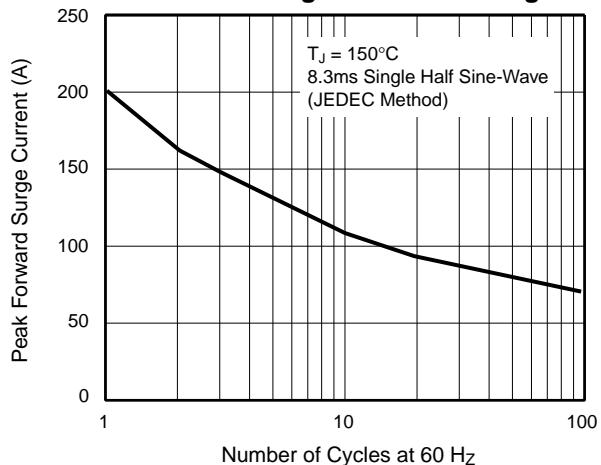


Fig. 3 – Typical Forward Characteristics Per Leg

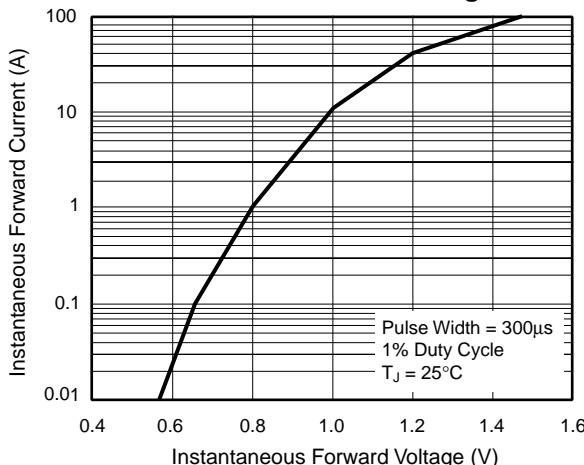


Fig. 4 – Typical Reverse Characteristics Per Leg

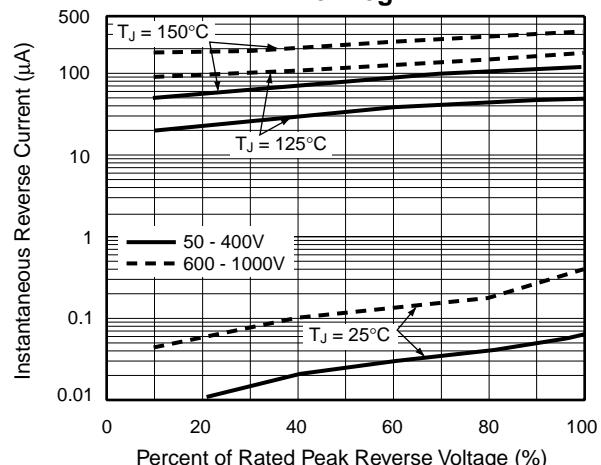


Fig. 5 – Typical Junction Capacitance Per Leg

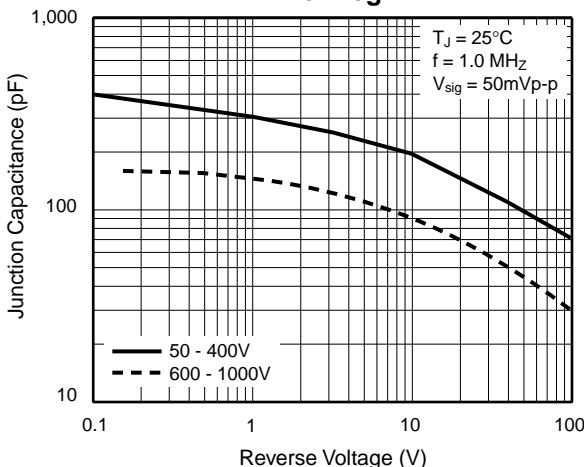


Fig. 6 – Typical Transient Thermal Impedance Per Leg

