



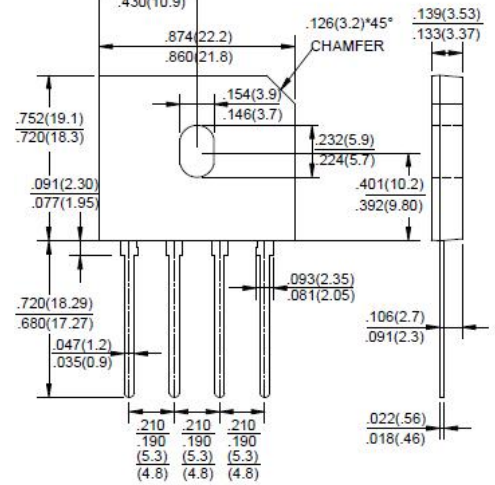
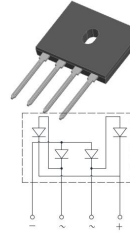
GBU8005 THRU GBU810

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 8.0 Ampere



Features

- Glass Passivated Bridge Rectifiers
- Reverse Voltage - 50 to 1000Volts
- Forward Current - 8.0Amperes
- Surge overload rating -200 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-0
- Mounting position:Any
- Weight: 0.138 ounces , 3.90grams



Mechanical Data

- Maximum Ratings and
- Electrical Characteristics
- specified.Single phase, half wave ,60Hz, resistive or inductive
- load.For capacitive load, derate current by 20%

Dimensions in inches and (millimeters)

Package: GBU

Maximum Ratings and Electrical Characteristics

- Rating at 25°C ambient temperature unless otherwise

| TYPE NUMBER | SYMBOL | GBU 8005 | GBU 801 | GBU 802 | GBU 804 | GBU 806 | GBU 808 | GBU 810 | UNIT |
|--|-----------------|---------------|---------|---------|---------|---------|---------|---------|------------------|
| Maximum Reverse Peak Repetitive Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current, 0.06" (1.5mm) lead length at $T_C=100^\circ C$ | $I_{(AV)}$ | 8.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method) | I_{FSM} | 200 | | | | | | | Amps |
| Rating for Fusing ($t < 8.3ms$) | I^2t | 127 | | | | | | | A ² s |
| Maximum Instantaneous Forward Voltage drop Per Bridge element 8.0A | V_F | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at rated DC blocking voltage per element | I_R | 10 | | | | | | | μAmps |
| | | 500 | | | | | | | |
| Typical Junction Capacitance Per Element (Note1) | C_J | 211 | | | 94 | | | pF | |
| Typical Thermal Resistance (NOTE 2) | $R_{\theta JC}$ | 2.1 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | (-55 to +150) | | | | | | | °C |

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Junction to case with heatsink.
3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.



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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

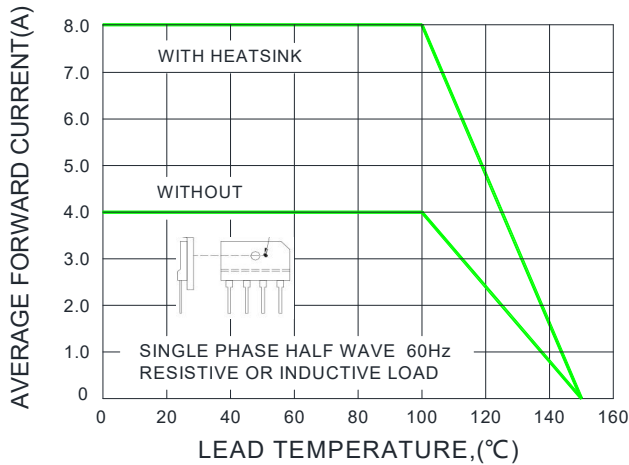


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

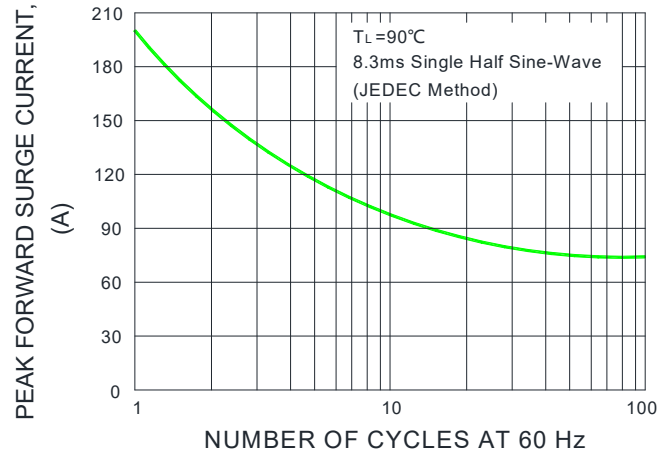


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

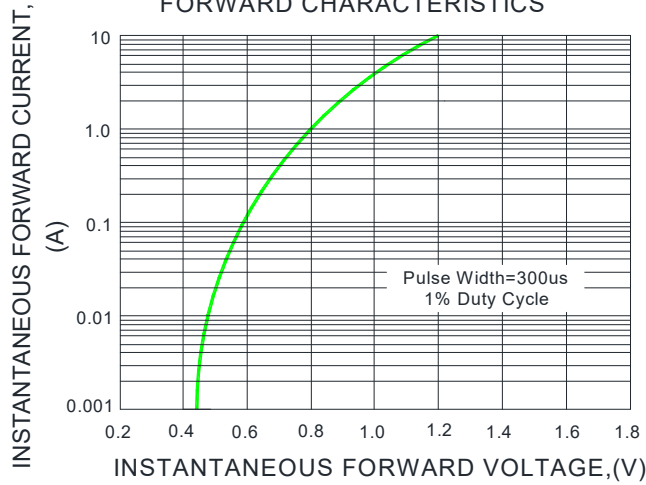


FIG.4-TYPICAL REVERSE CHARACTERISTICS

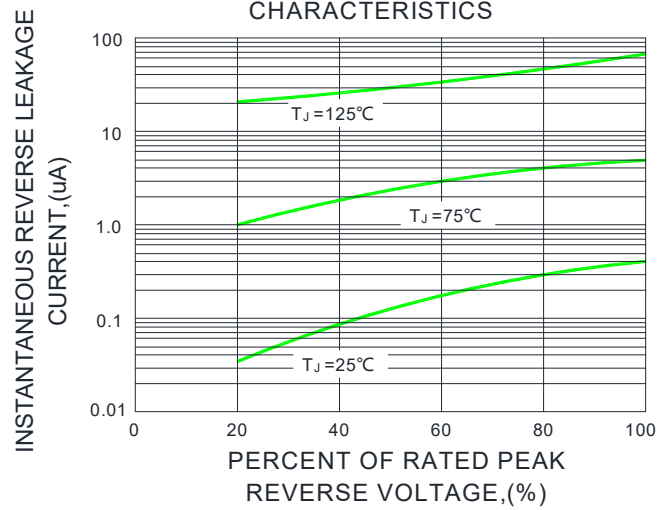
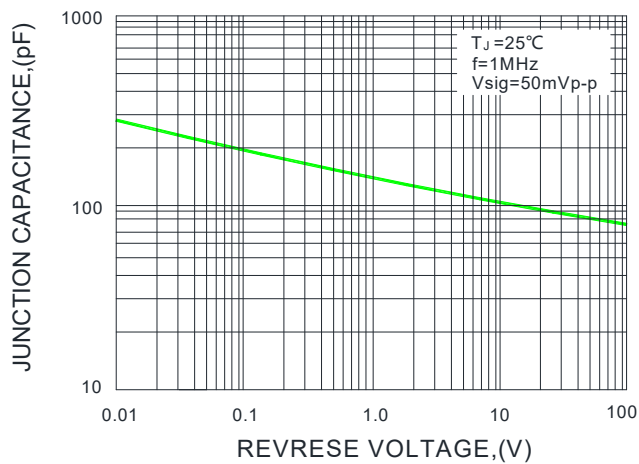


FIG.5-TYPICAL JUNCTION CAPACITANCE





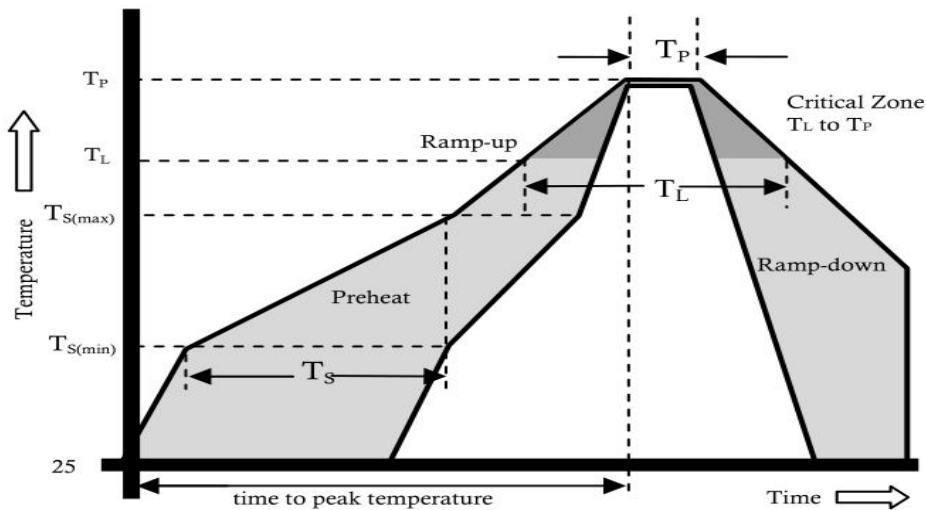
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Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------------|--------------|------------------|-----------------------|-------------------------|----------------------------|---------------|
| GBU8005 THRU GBU810 | B1 | Approximate 3.96 | 20 | 1000 | 2000 | TUBE |

Reflow Profile



| Reflow Condition | | Pb-Free Assembly |
|--|---------------------------------|------------------|
| Pre Heat | Temperature Min. | +150°C |
| | Temperature Max. | +200°C |
| | Time(Min to Max) | 60-180 secs. |
| Average ramp up rate(Liquidus Temp(T_L) to peak) | | 3°C/sec. Max. |
| $T_{S(max)}$ to T_L - Ramp-up Rate | | 3°C/sec. Max. |
| Reflow | Temperature (T_L)(Liquidus) | +217°C |
| | Temperature (T_L) | 60-150 secs. |
| Peak Temp (T_P) | | +(260+0/-5)°C |
| Time within 5°C of actual Peak Temp (T_P) | | 25 secs. |
| Ramp-down Rate | | 6°C/sec. Max. |
| Time 25°C to peak Temp (T_P) | | 8 min. Max. |
| Do not exceed | | +260°C |



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| | |
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