

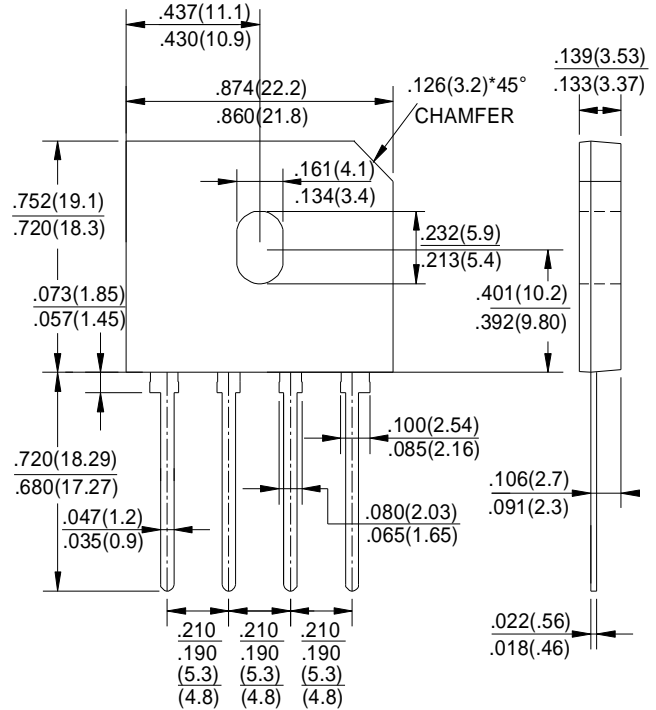
## GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000Volts  
FORWARD CURRENT - 6.0 Amperes

### FEATURES

- Surge overload rating -175 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

### GBU



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| CHARACTERISTICS  | SYMBOL            | GBU6005     | GBU601 | GBU602 | GBU604 | GBU606 | GBU608 | GBU610 | UNIT |                  |
|--|-------------------|-------------|--------|--------|--------|--------|--------|--------|------|------------------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V    |                  |
| Maximum RMS Voltage  | V <sub>RMS</sub>  | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V    |                  |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>   | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V    |                  |
| Maximum Average Forward Rectified Current @ T <sub>c</sub> =100°C (with heatsink Note 2)<br>@ T <sub>c</sub> =100°C (without heatsink) | I <sub>(AV)</sub> | 6.0         |        |        |        |        |        |        |      | A                |
|  |                   | 2.8         |        |        |        |        |        |        |      |                  |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method)                                | I <sub>FSM</sub>  | 175         |        |        |        |        |        |        |      | A                |
| Maximum Forward Voltage at 3.0A DC   | V <sub>F</sub>    | 1.0         |        |        |        |        |        |        |      | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =25°C<br>@ T <sub>J</sub> =125°C                              | I <sub>R</sub>    | 10.0        |        |        |        |        |        |        |      | μA               |
|  |                   | 500         |        |        |        |        |        |        |      |                  |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)   | I <sup>2</sup> t  | 127         |        |        |        |        |        |        |      | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note1)   | C <sub>J</sub>    | 50          |        |        |        |        |        |        |      | pF               |
| Typical Thermal Resistance   | R <sub>θJC</sub>  | 2.2         |        |        |        |        |        |        |      | °C/W             |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to +150 |        |        |        |        |        |        |      | °C               |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to +150 |        |        |        |        |        |        |      | °C               |

NOTES: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Device mounted on 75mm\*75mm\*1.6mm Cu plate heatsink.

FIG.1-FORWARD CURRENT DERATING CURVE

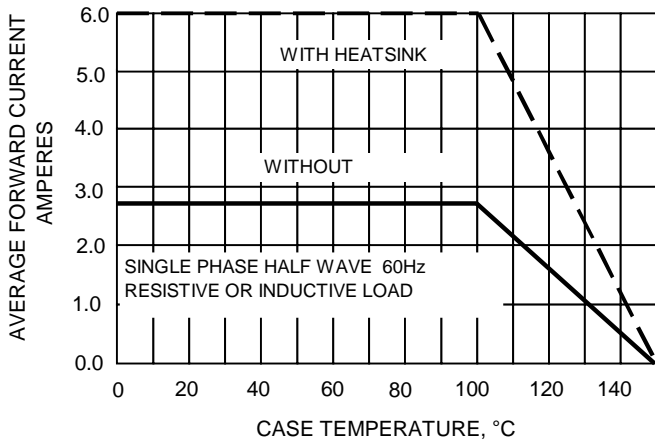


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

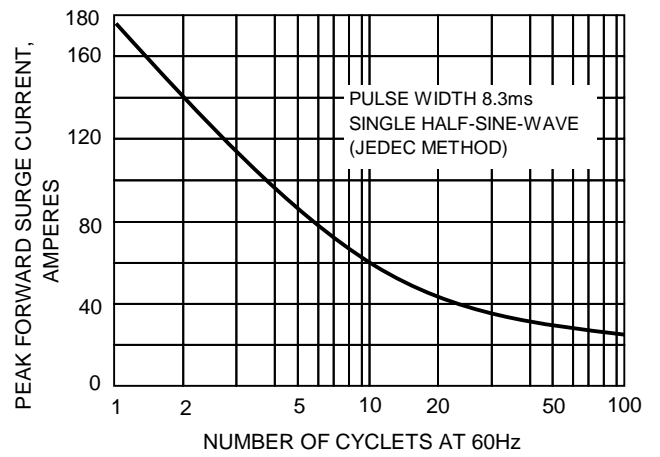


FIG.3-TYPICAL JUNCTION CAPACITANCE

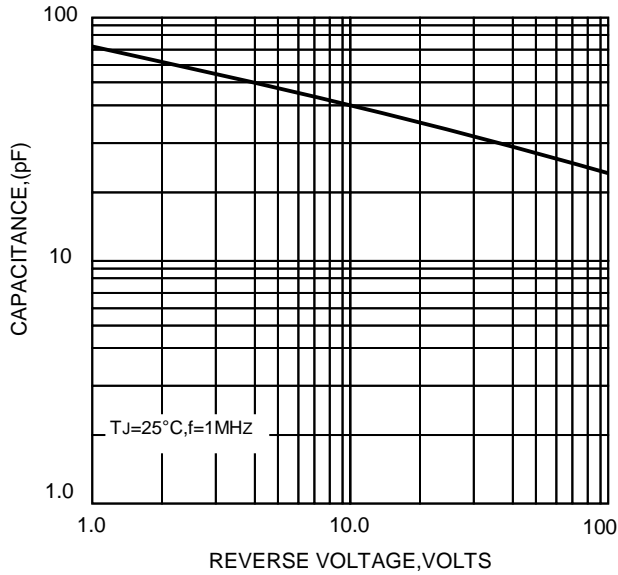


FIG.3-TYPICAL FORWARD CHARACTERISTICS

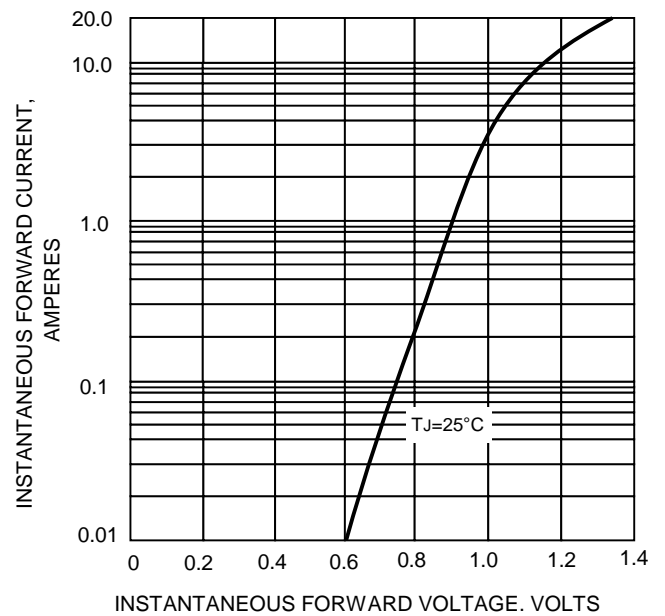


FIG.5-TYPICAL REVERSE CHARACTERISTICS

