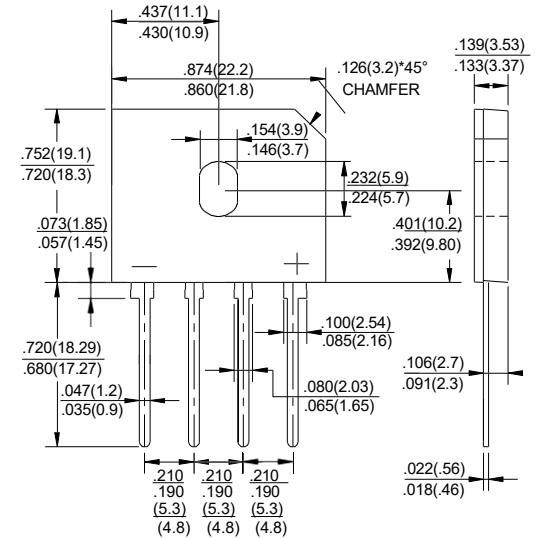


## GLASS PASSIVATED BRIDGE RECTIFIERS

### Features

- ◆ Surge overload rating -220 amperes peak
- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L flammability classification 94V-0
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed 265°C/10

### GBU



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                        | SYMBOLS         | GBU20005    | GBU2001 | GBU2002 | GBU2004 | GBU2006 | GBU2008 | GBU2010 | UNITS                        |
|------------------------------------------------------------------------------------------------------------------|-----------------|-------------|---------|---------|---------|---------|---------|---------|------------------------------|
| Marking Code                                                                                                     |                 |             |         |         |         |         |         |         |                              |
| Maximum repetitive 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 NOTE 2)<br>Rectified current @ $T_c=100^\circ\text{C}$ (without heatsink) | $I_{AV}$        | 20.0<br>3.5 |         |         |         |         |         |         | A                            |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)           | $I_{FSM}$       | 220         |         |         |         |         |         |         | A                            |
| Rating for Fusing ( $t < 8.3\text{ms}$ )                                                                         | $I^2t$          | 201         |         |         |         |         |         |         | $\text{A}^2\text{s}$         |
| Maximum forward voltage at 10A DC                                                                                | $V_F$           | 1.1         |         |         |         |         |         |         | V                            |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$        | $I_R$           | 10<br>0.5   |         |         |         |         |         |         | $\mu\text{A}$<br>$\text{mA}$ |
| Typical Junction Capacitance (Note 1)                                                                            | $C_J$           | 60          |         |         |         |         |         |         | pF                           |
| Typical Thermal Resistance (Note 2)                                                                              | $R_{\theta JA}$ | 2.2         |         |         |         |         |         |         | $^\circ\text{C/W}$           |
| Operating junction temperature range                                                                             | $T_J$           | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$             |
| storage temperature range                                                                                        | $T_{STG}$       | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$             |

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.

3. The typical data above is for reference only.

## Ratings And Characteristic Curves

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

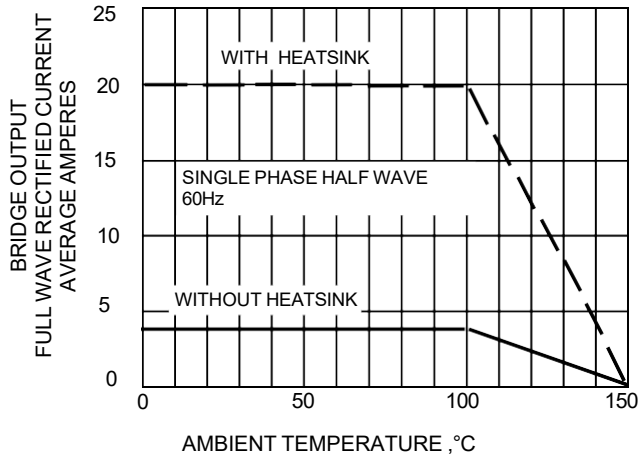


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

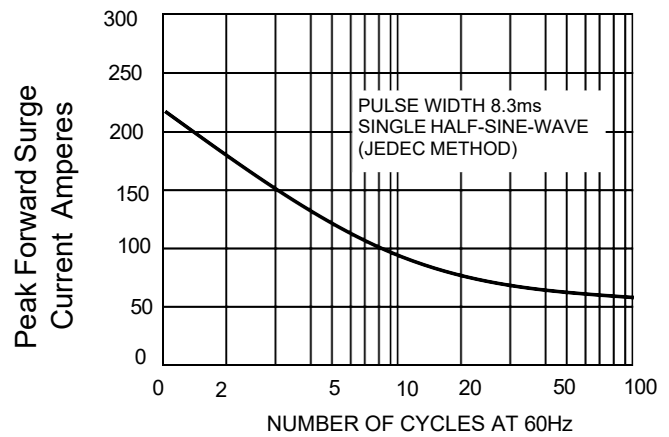


FIG.3-TYPICAL JUNCTION CAPACITANCE

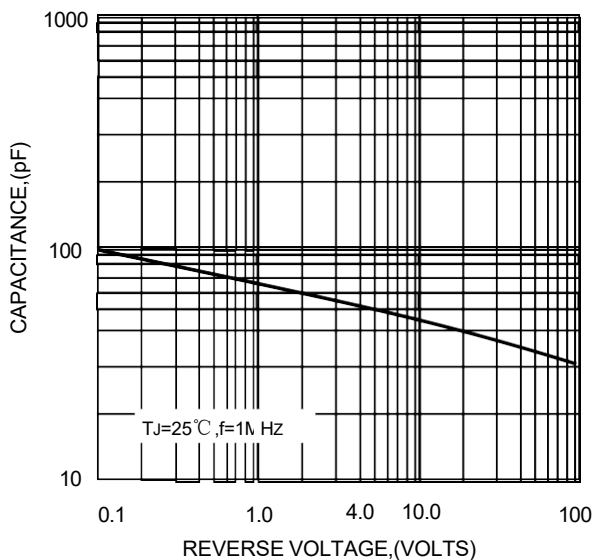


FIG.4-TYPICAL FORWARD CHARACTERISTICS

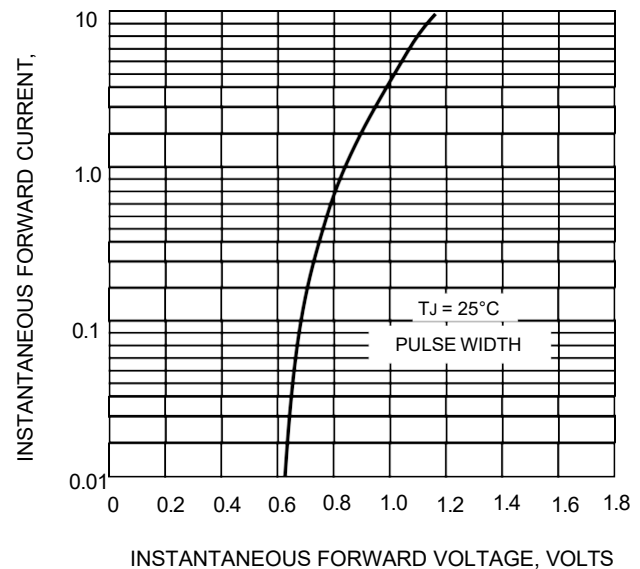
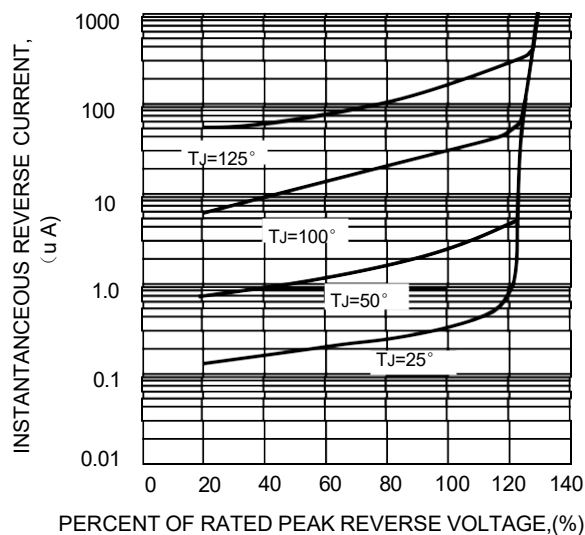


FIG.5-TYPICAL REVERSE CHARACTERISTICS



The curve graph is for reference only