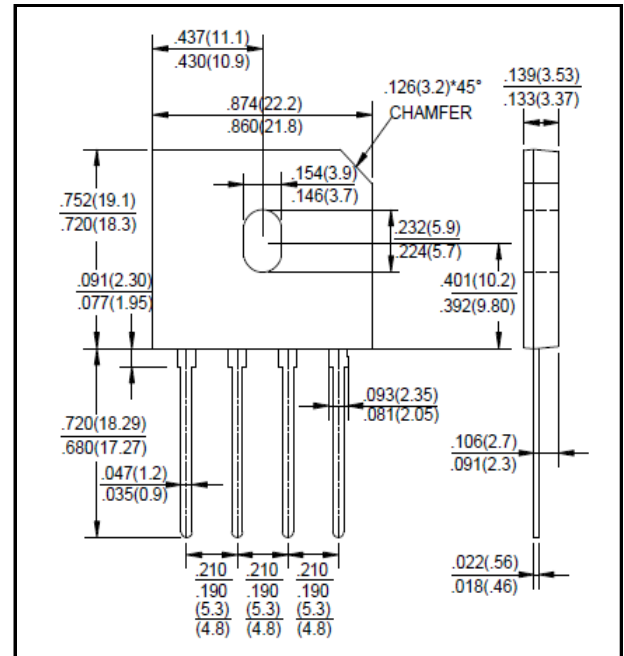


## 10A Single-Phase GLass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 50V to 1000V



### GBU



Dimensions in inches and (milimeters)

### Features

- Glass passivated junction
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 325 amperes peak
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265°C/10

### Mechanical Data

Case: Molded plastic

Terminals: Plate leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols molded or Marked on body

Mounting Position: Any

Weight: 0.138 ounce, 3.9 grams (approx)

### Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or inductive load, 60HZ.

For Capacitive load derate current by 20%

| Parameter                                                                             | Symbol           | GBU 10005                               | GBU 1001 | GBU 1002 | GBU 1004 | GBU 1006 | GBU 1008 | GBU 1010 | unit               |
|---------------------------------------------------------------------------------------|------------------|-----------------------------------------|----------|----------|----------|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage                                               | VRRM             | 50                                      | 100      | 200      | 400      | 600      | 800      | 1000     | V                  |
| Maximum RMS bridge input voltage                                                      | VRMS             | 35                                      | 70       | 140      | 280      | 420      | 560      | 700      | V                  |
| Maximum DC blocking voltage                                                           | VDC              | 50                                      | 100      | 200      | 400      | 600      | 800      | 1000     | V                  |
| Maximum average forward rectified output current at TA=40°C                           | IF(AV)           | 10.0<br>3.0                             |          |          |          |          |          |          | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 325.0                                   |          |          |          |          |          |          | A                  |
| Maximum Forward Voltage at 5.0A DC                                                    | VF               | 1.0                                     |          |          |          |          |          |          | V                  |
| Maximum DC reverse current at rated TA=25°C                                           | IR               | 5                                       |          |          |          |          |          |          | UA                 |
| DC blocking voltage per element TA=125°C                                              |                  | 500                                     |          |          |          |          |          |          |                    |
| Rating for fusing (t<8.3ms)                                                           | I <sup>2</sup> t | 438                                     |          |          |          |          |          |          | A <sup>2</sup> sec |
| Typical thermal resistance per element(1)                                             | ReJA             | 23                                      |          |          |          |          |          |          | °C/w               |
| Mounting torque (Suggests 0.45~0.65)                                                  | Tor              | Rating Torque: 0.8 (Suggests 0.45~0.65) |          |          |          |          |          |          | N.m                |
| Typical thermal resistance per element(2)                                             | Cj               | 100.0                                   |          |          |          |          |          |          | PF                 |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55to+150                               |          |          |          |          |          |          | °C                 |

Notes: (1) Device mounted on 100mm\*100mm\*1.6mm Cu plate heatsink.

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

## Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

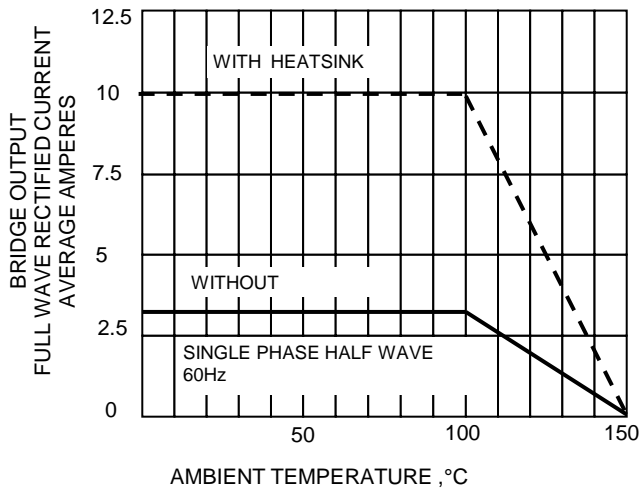


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

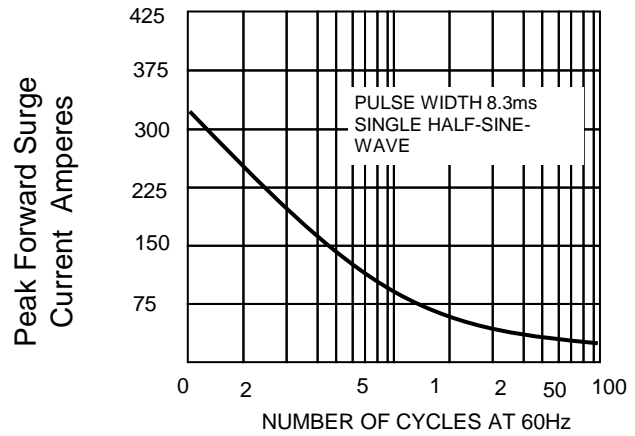


FIG.3-TYPICAL REVERSE CHARACTERISTICS

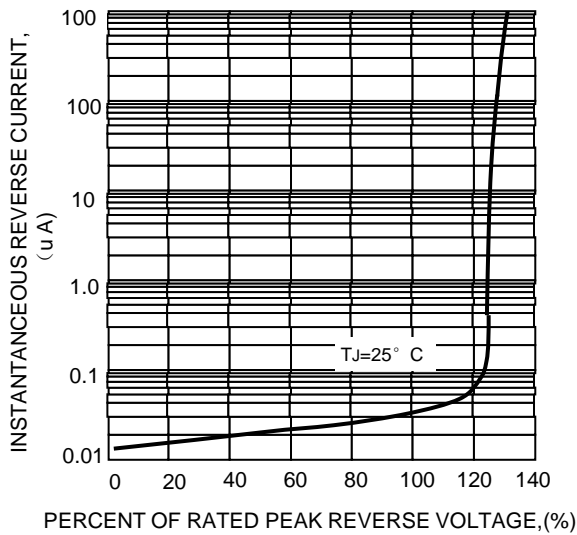


FIG.4-TYPICAL FORWARD CHARACTERISTICS

