

## Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 50 \text{ V} - 400 \text{ V}$

$I_O = 10 \text{ A}$

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500  $V_{RMS}$
- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge overload rating
- High temperature soldering guaranteed: 260°C/ 10 seconds, 0.375 (9.5mm) lead length
- Not ESD Sensitive

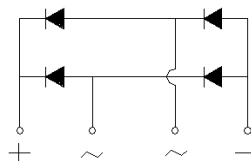
### Mechanical Data

Case: Molded plastic body over passivated junctions

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

Mounting position: Any

GBU Package



### Maximum ratings at $T_c = 25^\circ\text{C}$ , unless otherwise specified

| Parameter                       | Symbol    | Conditions | GBU10A     | GBU10B     | GBU10D     | GBU10G     | Unit             |
|---------------------------------|-----------|------------|------------|------------|------------|------------|------------------|
| Repetitive peak reverse voltage | $V_{RRM}$ |            | 50         | 100        | 200        | 400        | V                |
| RMS reverse voltage             | $V_{RMS}$ |            | 35         | 70         | 140        | 280        | V                |
| DC blocking voltage             | $V_{DC}$  |            | 50         | 100        | 200        | 400        | V                |
| Operating temperature           | $T_j$     |            | -55 to 150 | -55 to 150 | -55 to 150 | -55 to 150 | $^\circ\text{C}$ |
| Storage temperature             | $T_{stg}$ |            | -55 to 150 | -55 to 150 | -55 to 150 | -55 to 150 | $^\circ\text{C}$ |

### Electrical characteristics at $T_c = 25^\circ\text{C}$ , unless otherwise specified

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

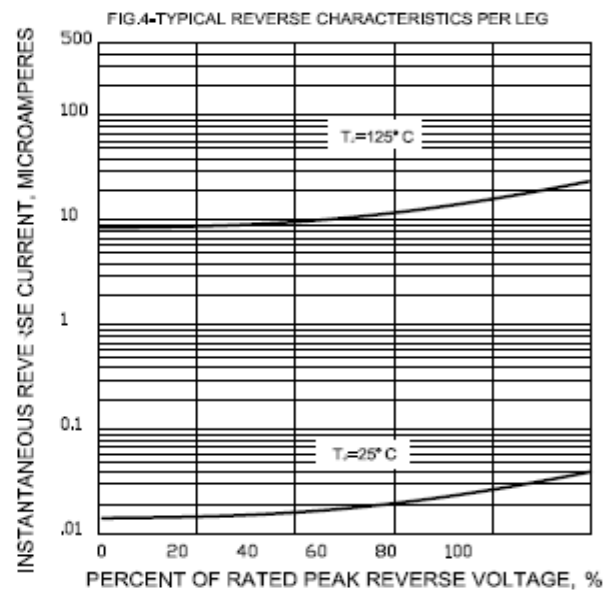
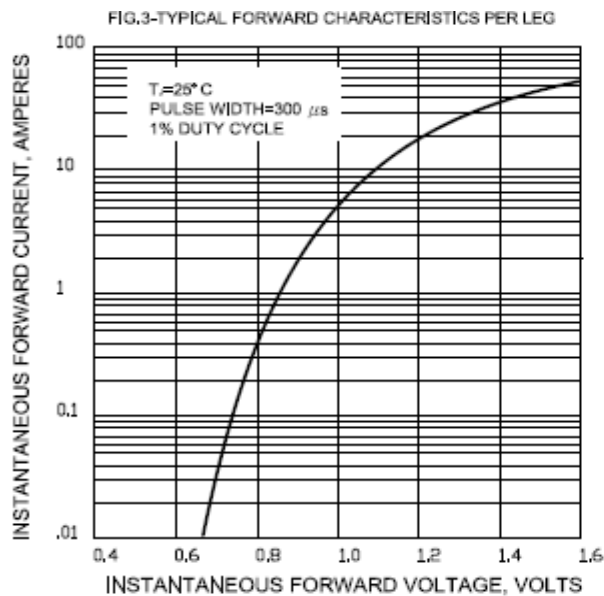
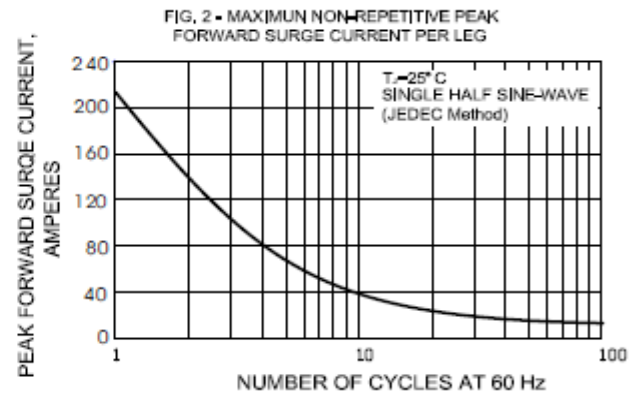
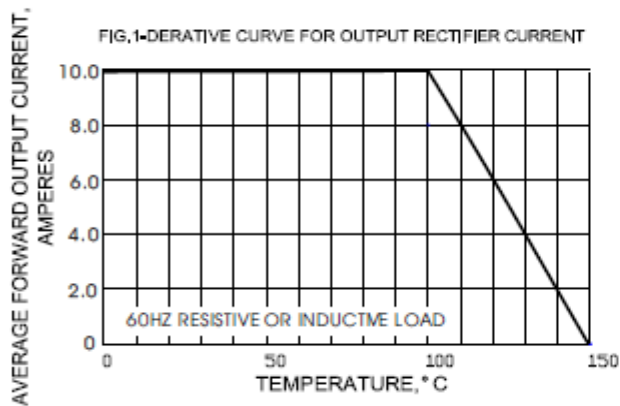
For capacitive load derate current by 20%

| Parameter                                                       | Symbol          | Conditions                         | GBU10A | GBU10B | GBU10D | GBU10G | Unit               |
|-----------------------------------------------------------------|-----------------|------------------------------------|--------|--------|--------|--------|--------------------|
| Maximum average forward rectified current <sup>1,2</sup>        | $I_O$           | $T_c = 100^\circ\text{C}$          | 10.0   | 10.0   | 10.0   | 10.0   | A                  |
| Peak forward surge current                                      | $I_{FSM}$       | $t_p = 8.3 \text{ ms}$ , half sine | 220    | 220    | 220    | 220    | A                  |
| Maximum instantaneous forward voltage drop per leg              | $V_F$           | $I_F = 10 \text{ A}$               | 1.1    | 1.1    | 1.1    | 1.1    | V                  |
| Maximum DC reverse current at rated DC blocking voltage per leg | $I_R$           | $T_a = 25^\circ\text{C}$           | 5      | 5      | 5      | 5      | $\mu\text{A}$      |
|                                                                 |                 | $T_a = 125^\circ\text{C}$          | 500    | 500    | 500    | 500    |                    |
| Typical junction capacitance per leg <sup>3</sup>               | $C_j$           |                                    | 70     | 70     | 70     | 70     | pF                 |
| Typical thermal resistance per leg <sup>1,2</sup>               | $R_{\theta JC}$ |                                    | 2.2    | 2.2    | 2.2    | 2.2    | $^\circ\text{C/W}$ |

<sup>1</sup> - Device mounted on 100 mm x 100 mm x 1.6 mm Cu plate heatsink

<sup>2</sup> - Recommended mounted position is to bolt down device on a heatsink with silicon thermal compound for maximum heat transfer using #6 screw.

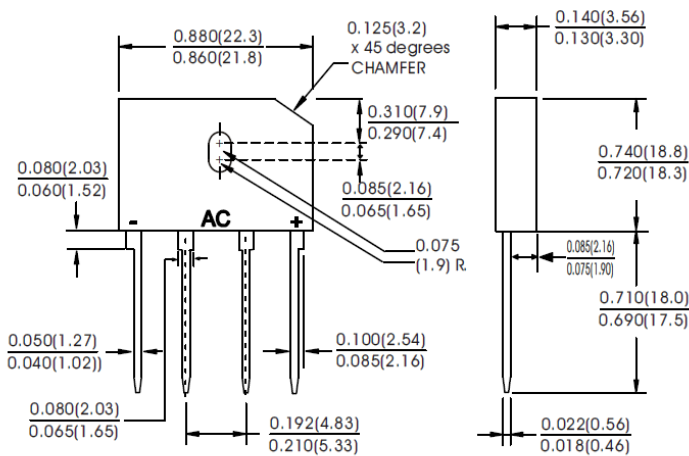
<sup>3</sup> - Measured at 1.0 MHz and applied reverse bias of 4.0 V



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

GBU



Dimensions in inches and (millimeters)

