

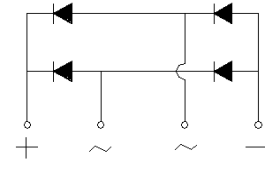
# Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 600\text{ V}$   
 $I_O = 8\text{ A}$

## 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

## GBU Package



## Mechanical Data

Case: Molded plastic body over passivated junctions  
 Terminals: Plated leads, solderable per MIL-STD-750 Method 2026.  
 Mounting position: Any

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

| Parameter                       | Symbol    | Conditions | GBU8J      | GBU8K      | GBU8M      |
|---------------------------------|-----------|------------|------------|------------|------------|
| Repetitive peak reverse voltage | $V_{RRM}$ |            | 600        | 800        | 1000       |
| RMS reverse voltage             | $V_{RMS}$ |            | 420        | 560        | 700        |
| DC blocking voltage             | $V_{DC}$  |            | 600        | 800        | 1000       |
| Operating temperature           | $T_j$     |            | -55 to 150 | -55 to 150 | -55 to 150 |
| Storage temperature             | $T_{stg}$ |            | -55 to 150 | -55 to 150 | -55 to 150 |

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

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

| Parameter   | Symbol                             | Conditions                                    | GBU8J     | GBU8K     | GBU8M     |
|---|------------------------------------|---|-----------|-----------|-----------|
| Maximum average forward rectified current <sup>1,2</sup>        | $I_O$                              | $T_c = 100\text{ °C}$                         | 8.0       | 8.0       | 8.0       |
| Peak forward surge current                                      | $I_{FSM}$                          | $t_p = 8.3\text{ ms}$ , half sine             | 200       | 200       | 200       |
| Maximum instantaneous forward voltage drop per leg              | $V_F$                              | $I_F = 8\text{ A}$                            | 1.1       | 1.1       | 1.1       |
| Maximum DC reverse current at rated DC blocking voltage per leg | $I_R$                              | $T_a = 25\text{ °C}$<br>$T_a = 125\text{ °C}$ | 5<br>500  | 5<br>500  | 5<br>500  |
| Rating for fusing   | $I^2t$                             | $t < 8.3\text{ ms}$                           | 166       | 166       | 166       |
| Typical junction capacitance per leg <sup>3</sup>               | $C_j$                              |   | 94        | 94        | 94        |
| Typical thermal resistance per leg <sup>1,2</sup>               | $R_{\theta JA}$<br>$R_{\theta JL}$ |   | 21<br>2.2 | 21<br>2.2 | 21<br>2.2 |

<sup>1</sup> - Device mounted on 82 mm x 82 mm x 3 mm Al 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

**U8M**

**1000 V**



**Unit**

V

V

V

°C

°C

**Unit**

A

A

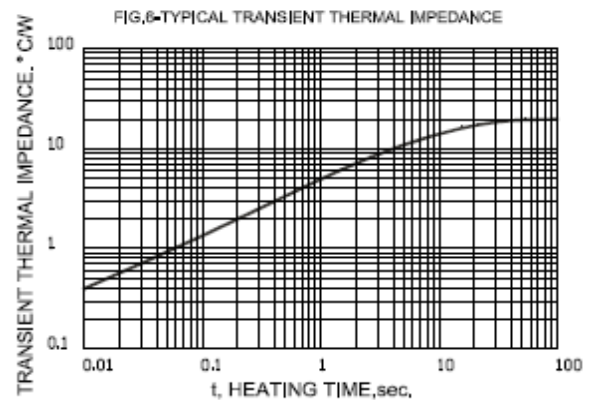
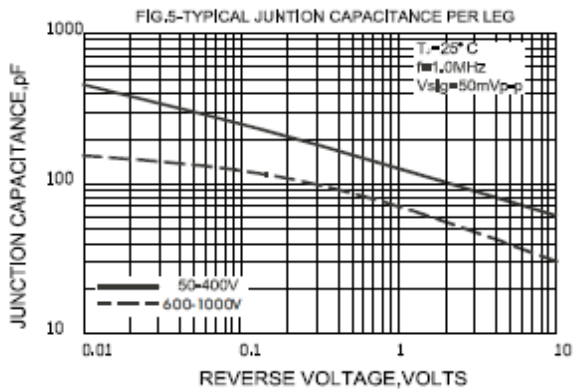
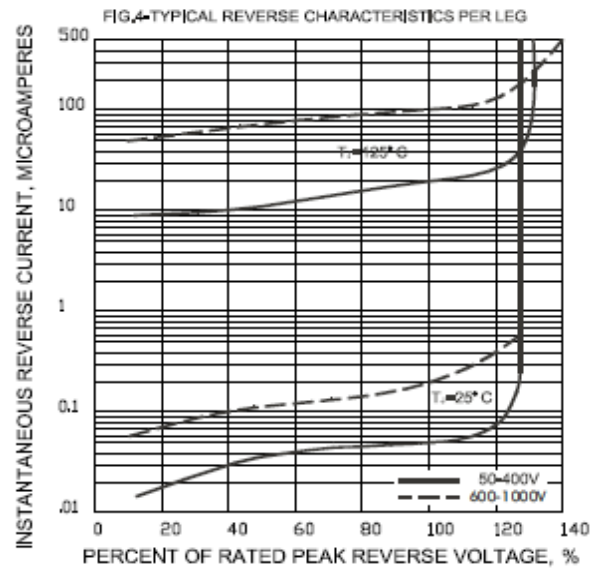
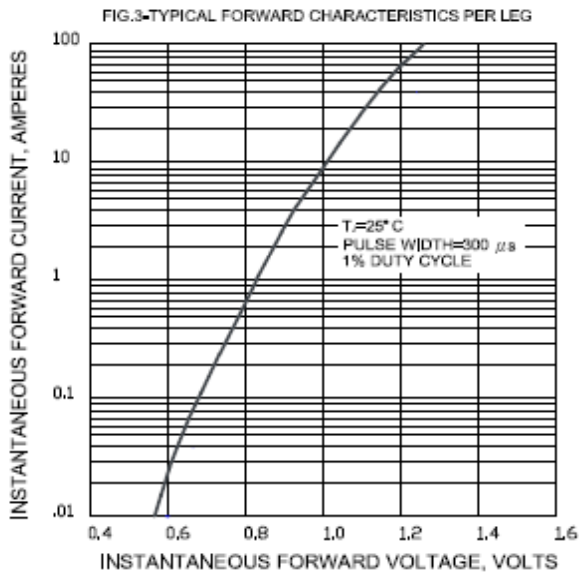
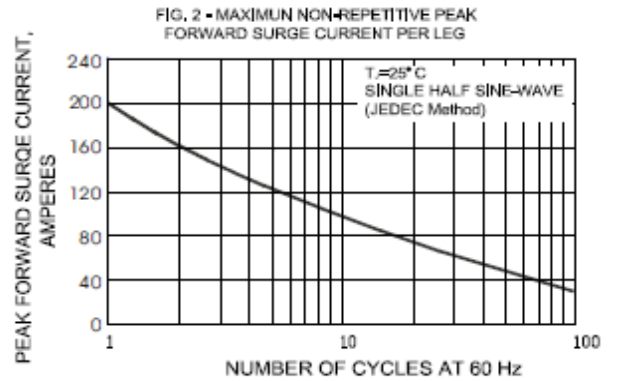
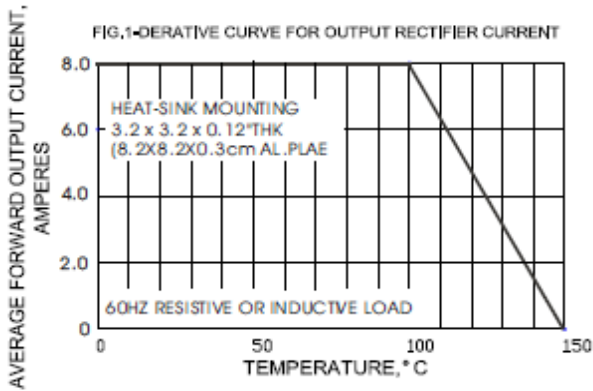
V

μA

A<sup>2</sup>sec

pF

°C/W



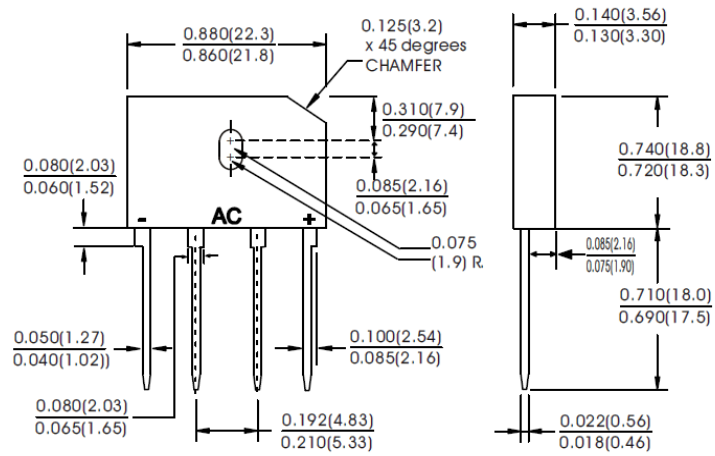
**U8M**



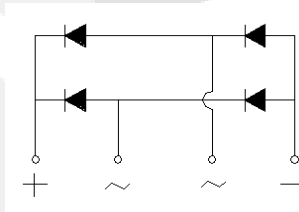
**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.

**GBU**



Dimensions in inches and (millimeters)



**U8M**



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