

## Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 600\text{ V} - 1000\text{ V}$

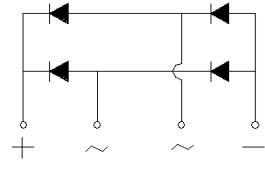
$I_O = 10\text{ A}$

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

Parameter	Symbol	Conditions	GBU10J	GBU10K	GBU10M	Unit
Repetitive peak reverse voltage	$V_{RRM}$		600	800	1000	V
RMS reverse voltage	$V_{RMS}$		420	560	700	V
DC blocking voltage	$V_{DC}$		600	800	1000	V
Operating temperature	$T_j$		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	$T_{stg}$		-55 to 150	-55 to 150	-55 to 150	°C

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

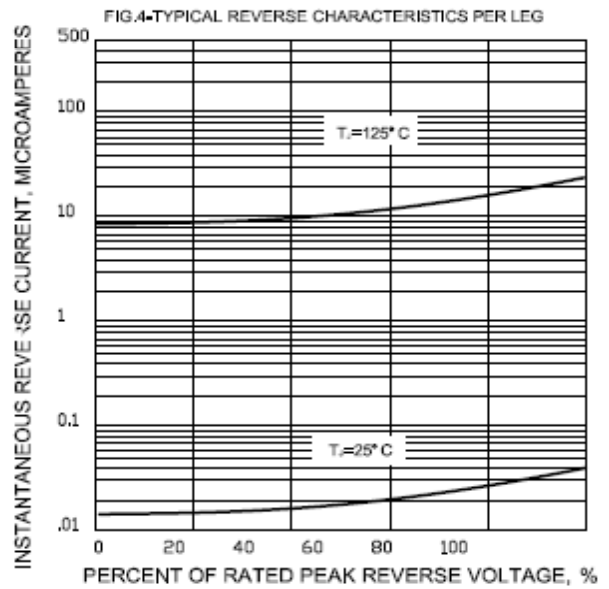
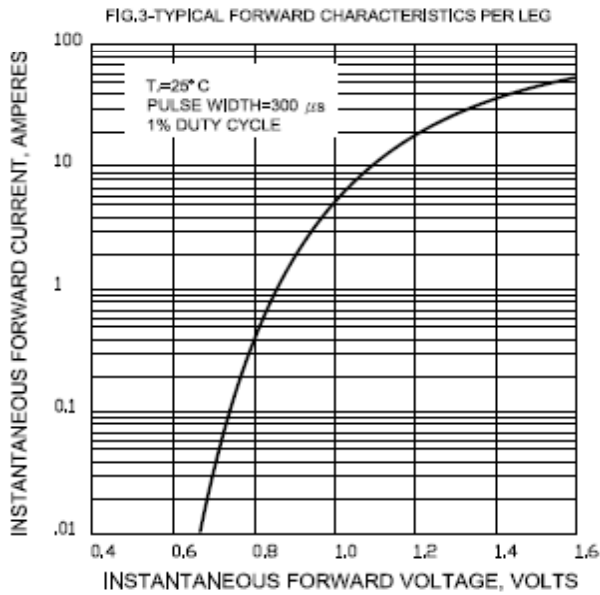
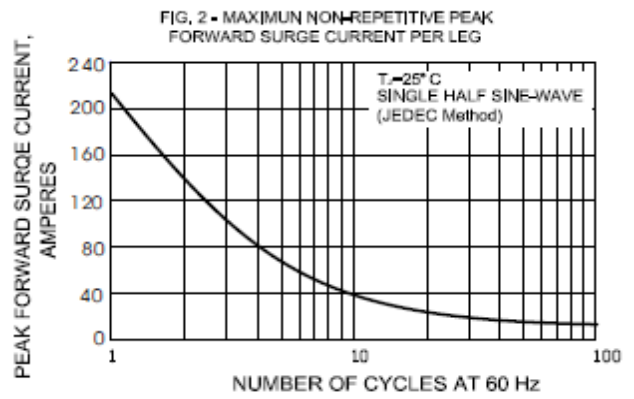
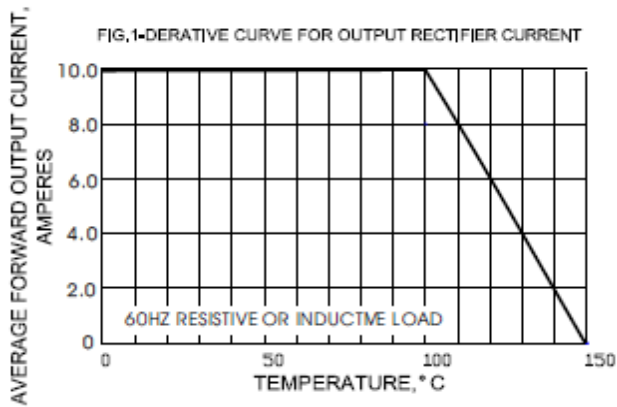
Single phase, half sine wave, 60 Hz, resistive or inductive load.  
 For capacitive load derate current by 20%.

Parameter	Symbol	Conditions	GBU10J	GBU10K	GBU10M	Unit
Maximum average forward rectified current <sup>1,2</sup>	$I_O$	$T_c = 100\text{ °C}$	10.0	10.0	10.0	A
Peak forward surge current	$I_{FSM}$	$t_p = 8.3\text{ ms}$ , half sine	220	220	220	A
Maximum instantaneous forward voltage drop per leg	$V_F$	$I_F = 10\text{ A}$	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	$I_R$	$T_a = 25\text{ °C}$ $T_a = 125\text{ °C}$	5 500	5 500	5 500	$\mu\text{A}$
Typical junction capacitance per leg <sup>3</sup>	$C_j$		70	70	70	pF
Typical thermal resistance per leg <sup>1,2</sup>	$R_{\theta JC}$		2.2	2.2	2.2	°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.

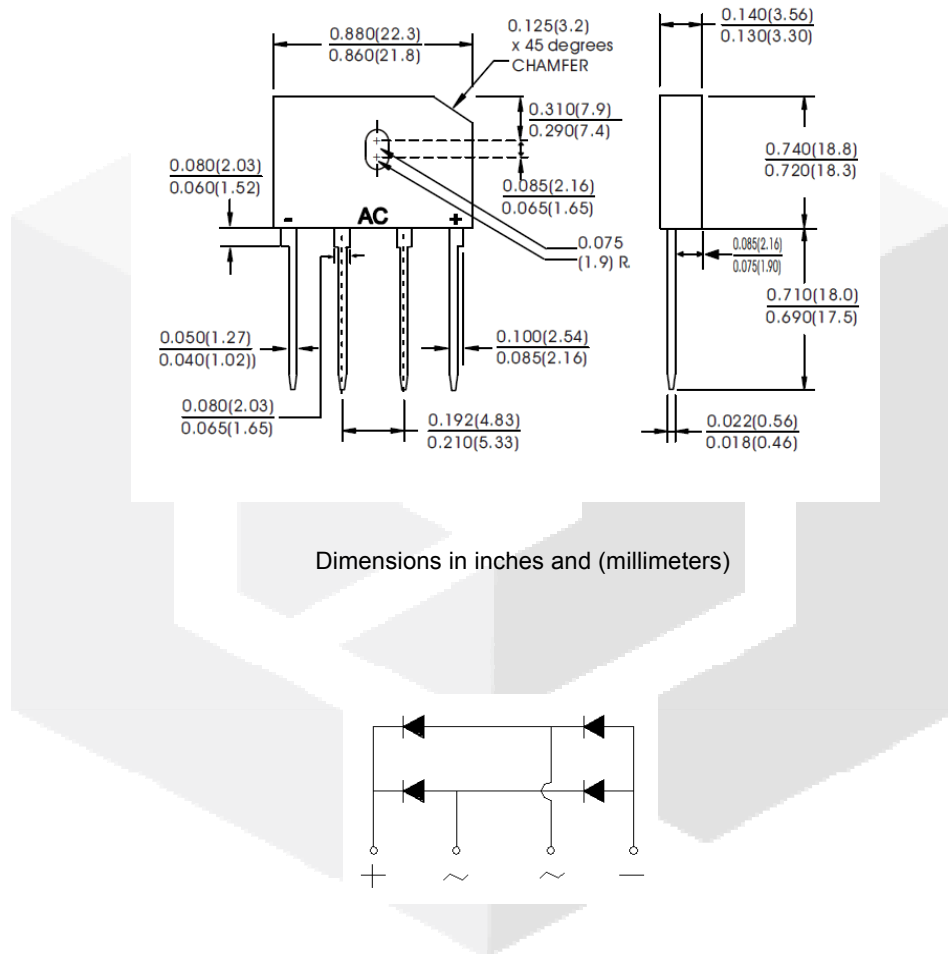
<sup>3</sup> - Measured at 1.0 MHz and applied reverse bias of 4.0 V



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.

**GBU**



Dimensions in inches and (millimeters)