

# Single Phase Glass Passivated Silicon Bridge Rectifier

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

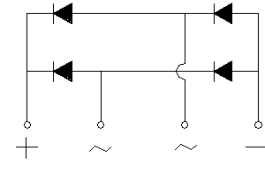
## Features

- 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

## 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	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	$I_R$	$T_a = 25\text{ °C}$ $T_a = 125\text{ °C}$	5 500	5 500	5 500
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>	$R_{\theta JA}$ $R_{\theta JL}$		21 2.2	21 2.2	21 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

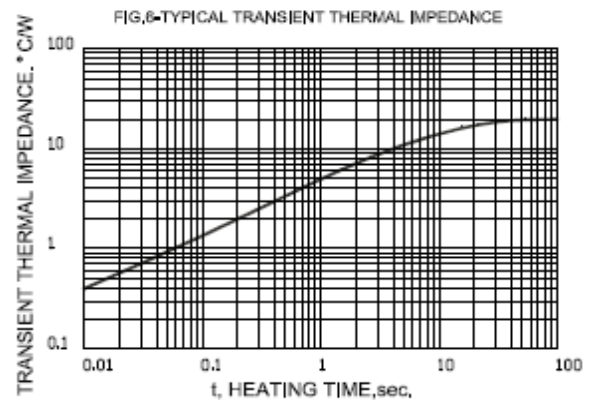
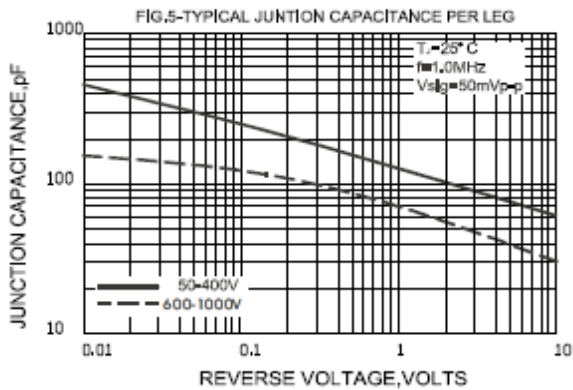
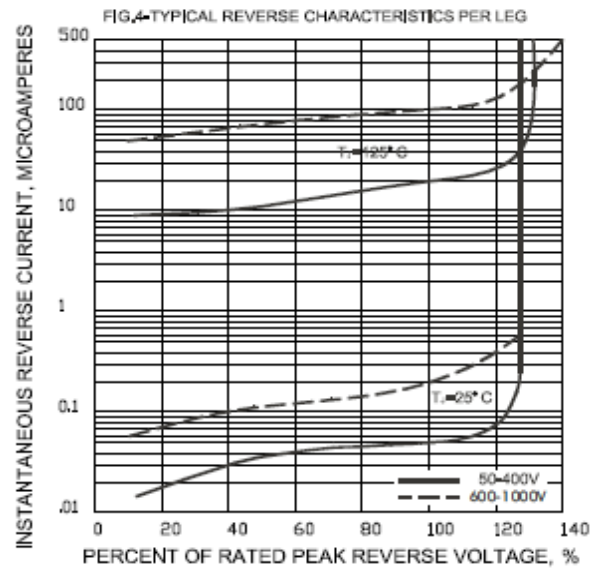
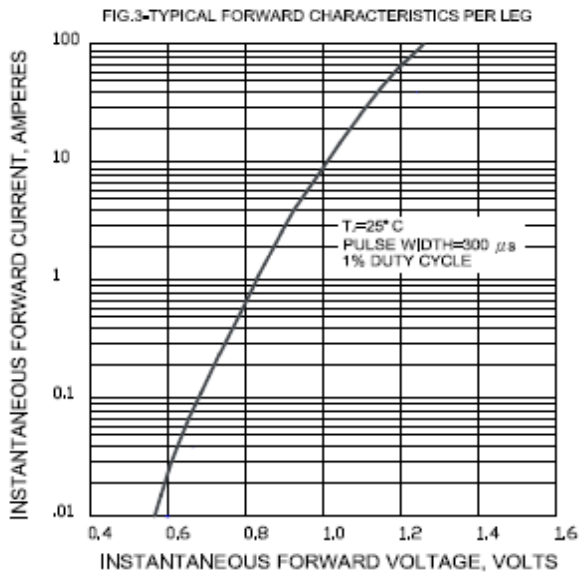
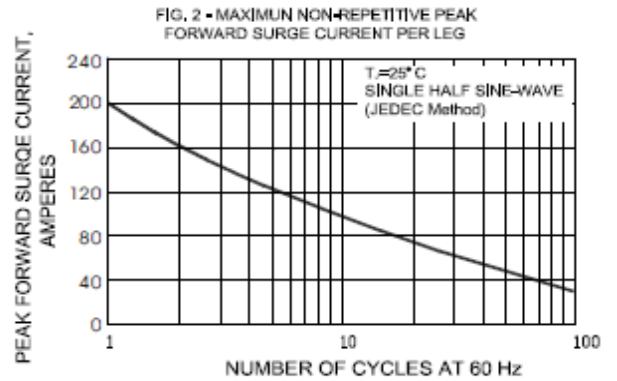
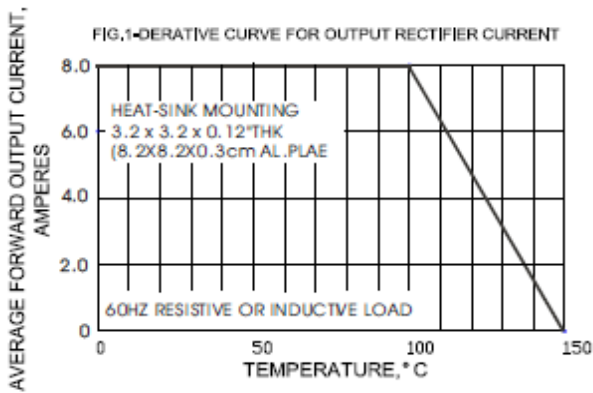
V

μA

A<sup>2</sup>sec

pF

°C/W



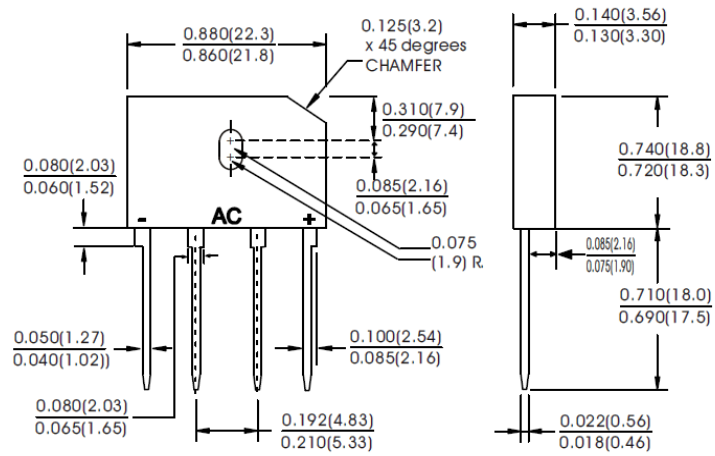
**U8M**



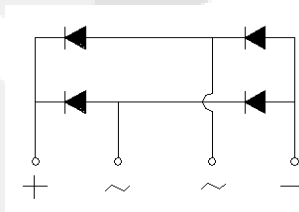
**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.

**GBU**



Dimensions in inches and (millimeters)



**U8M**



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