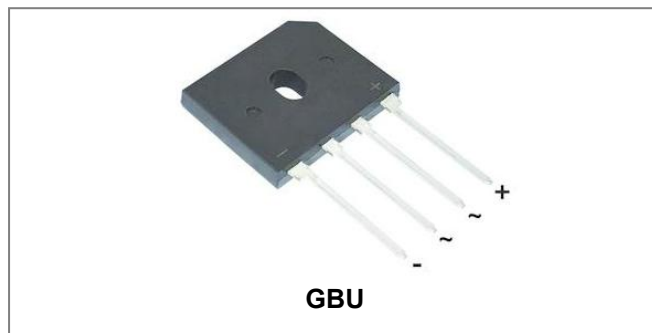


## GBU8005G THRU GBU810G

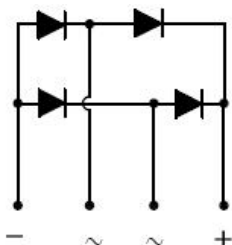
### Single-Phase 8.0A Glass Passivated Bridge Rectifier



#### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

#### Circuit Diagram



#### Mechanical Data

- Case: GBU, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

#### Maximum Ratings: @T<sub>A</sub>=25°C unless otherwise specified

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

Type Number	Symbol	GBU 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>DC</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average forward rectified output current (Note 1) @T <sub>C</sub> = 90°C	I <sub>O</sub>	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200							A

**Electrical Characteristics: @T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	GBU 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	Units
Forward Voltage (per element) @I <sub>F</sub> =4A @I <sub>F</sub> =8A	V <sub>F</sub>				1.0 1.1				V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>				5.0 500				μA
I <sup>2</sup> t Rating for fusing (t <8.3ms)	I <sup>2</sup> t				166				A <sup>2</sup> s
Typical Junction Capacitance(per leg) (Note 2)	C <sub>J</sub>				70				pF

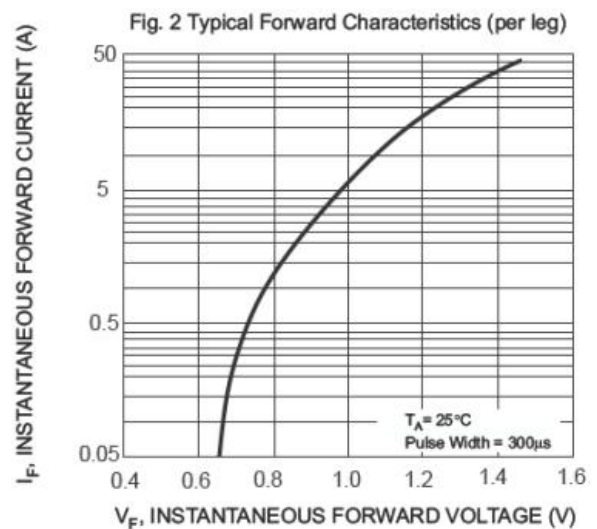
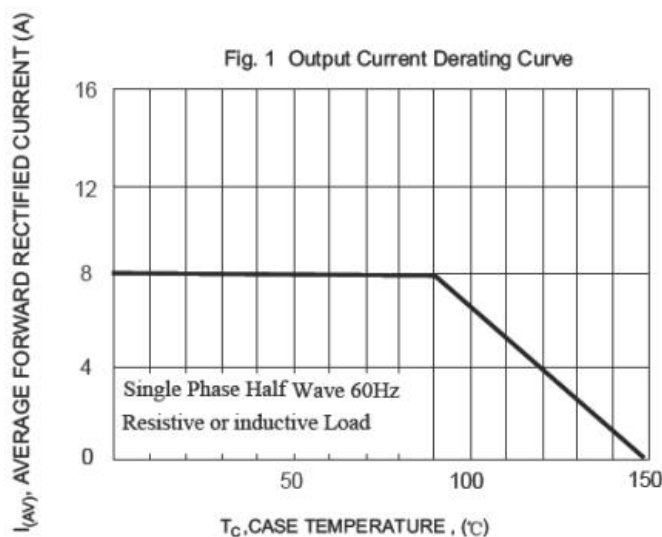
\* Pulse width < 300 μs, duty cycle < 2%

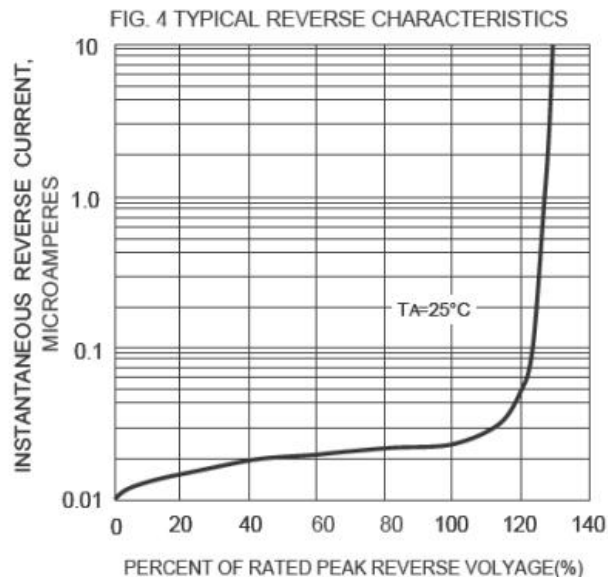
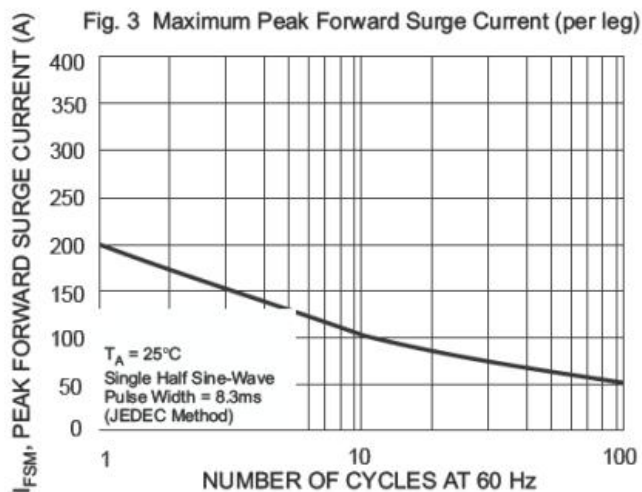
**Thermal-Mechanical Specifications: @T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	GBU 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	Units
Typical Thermal Resistance (per leg) (Note 3)	R <sub>θJA</sub> R <sub>θJL</sub>				30.9 7.3				°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>				-55 to +150				°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heat sink.

**Ratings and Characteristics Curves**



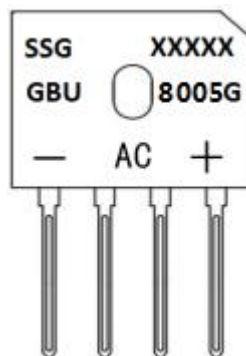


### Ordering Information

Device	Package	Plating	Shipping
GBU8005G THRU GBU810G	GBU(Pb-Free)	Pure Sn	20pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

### Marking Diagram

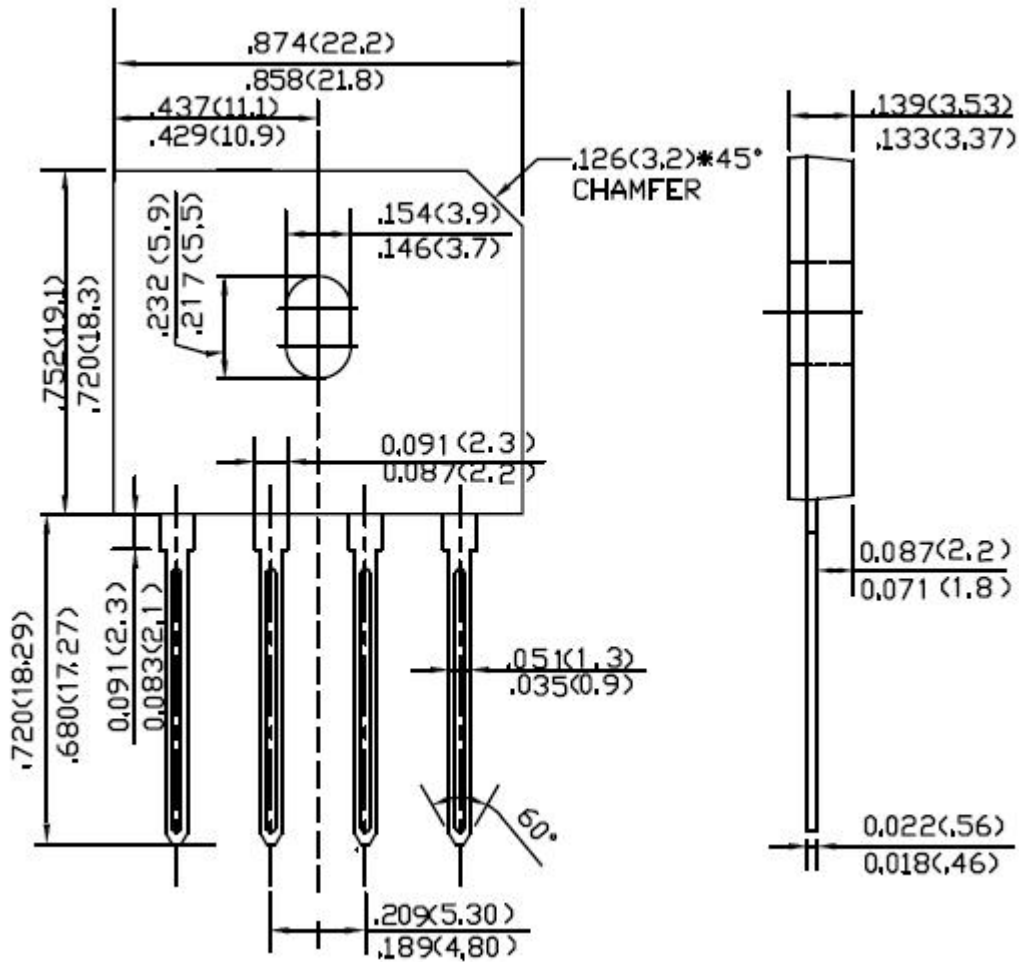


Where XXXXX is YYWWL

SSG      = SSG  
YY      = Year  
WW      = Week  
L      = Lot Number  
GBU8005G      = Type Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Mechanical Dimensions GBU (Inches/Millimeters)**



**Technical Data  
Data Sheet N1919, Rev. A**



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