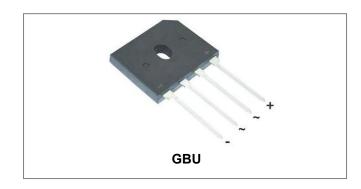


### Automotive Qualified

## **GBU810-A**

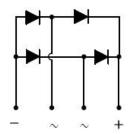
## Single-Phase 8.0A Glass Passivated Bridge Rectifier



### **Features**

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- "-A" is an AEC-Q101 qualified device
- 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	GBU810-A	Units
Marking Code		GBU810	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>DC</sub>	лемм 1000	
RMS Reverse Voltage	V <sub>RMS</sub>	700	V
Average forward rectified output current (Note 1) @T <sub>A</sub> = 40°C			А
on-Repetitive Peak Forward Surge Current Sms Single half sine-wave superimposed on ed load (JEDEC Method)  IFSM 150		А	

- China Germany Korea Singapore United States
  - http://www.smc-diodes.com sales@ smc-diodes.com •



### Automotive Qualified

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

Type Number	Symbol	GBU810-A	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	μА
Typical Junction Capacitance(per leg) (Note 2)	Сл	75	pF

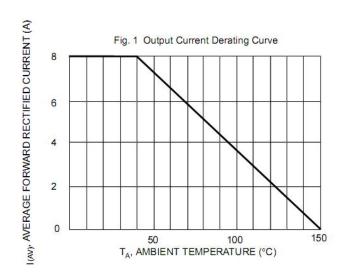
<sup>\*</sup> Pulse width < 300 µs, duty cycle < 2%

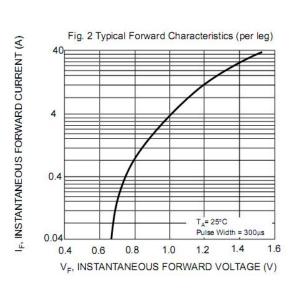
### Thermal-Mechanical Specifications:@TA=25°C unless otherwise specified

Type Number	Symbol	GBU810-A	Units
Typical Thermal Resistance (per leg)	$R_{ heta JA} \ R_{ heta JL}$	21 2.2	°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.

# **Ratings and Characteristics Curves**

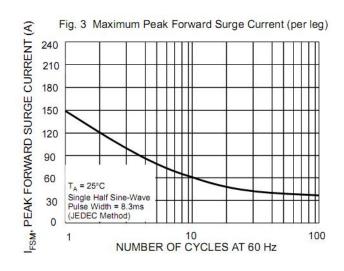


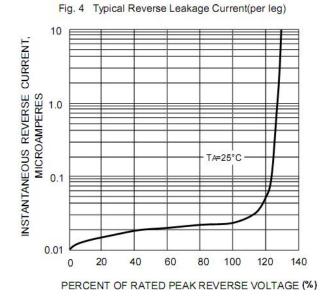


- China Germany Korea Singapore United States
  - http://www.smc-diodes.com sales@ smc-diodes.com •



### Automotive Qualified



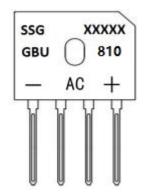


## **Ordering Information**

Device	Package	Plating	Shipping
GBU810-A	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

 GBU810
 = Marking code

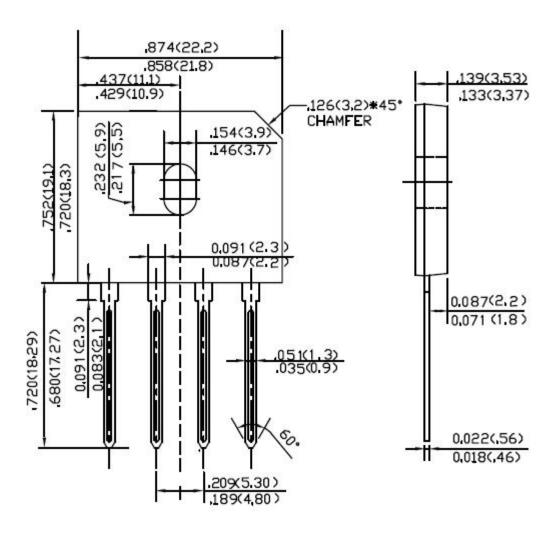
**Cautions:** Molding resin Epoxy resin UL:94V-0

- China Germany Korea Singapore United States
  - http://www.smc-diodes.com sales@ smc-diodes.com •



Automotive Qualified

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



<sup>•</sup> China - Germany - Korea - Singapore - United States •

<sup>•</sup> http://www.smc-diodes.com - sales@ smc-diodes.com •



### **Automotive Qualified**

#### DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.