

**GBU8005G-GBU810G
SINGLE PHASE 8.0AMP GLASS PASSIVATED BRIDGE RECTIFIER**

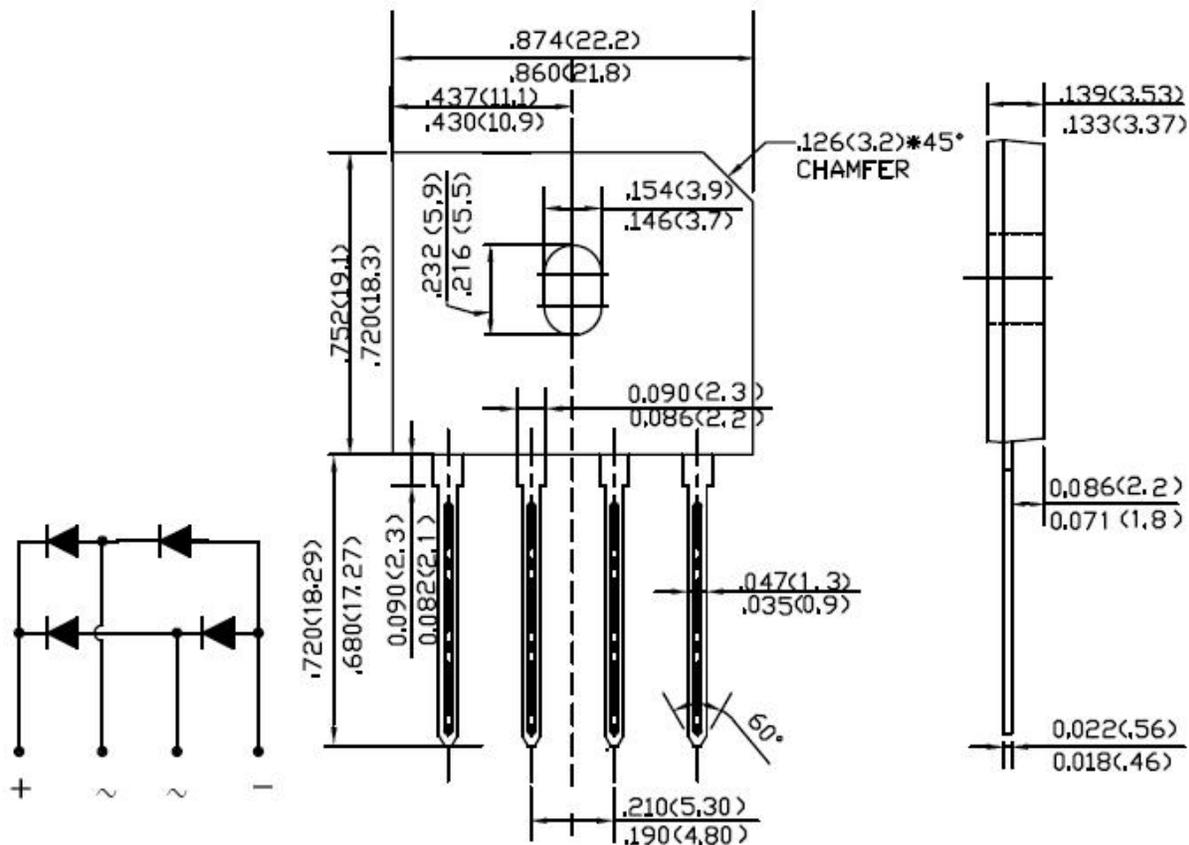
Features:

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data:

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

Mechanical Dimensions: In Inches/mm



GBU

MARKING, MOLDING RESIN

Marking for Type Number, 1st row SSG YYWWL, 2nd row Type Number
 Where YY is the manufacture year
 WW is the manufacture week code
 L is the wafer's Lot Number

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

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

Maximum Ratings:

Type Number	Symbol	GBU 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average forward rectified output current (Note 1) @ $T_c = 90^\circ C$	I_o	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A

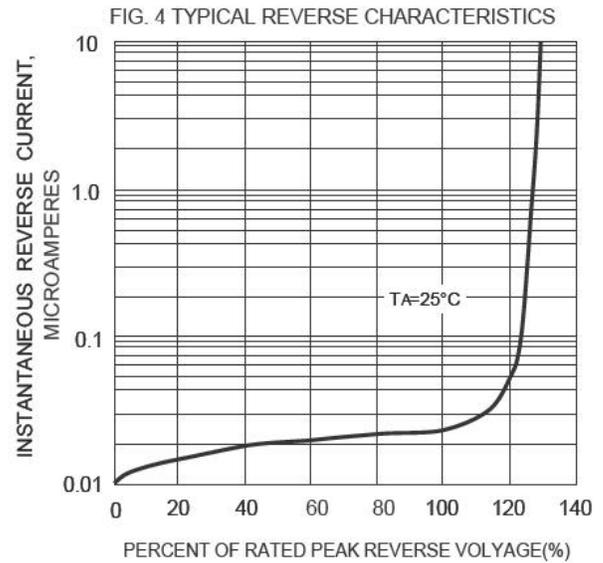
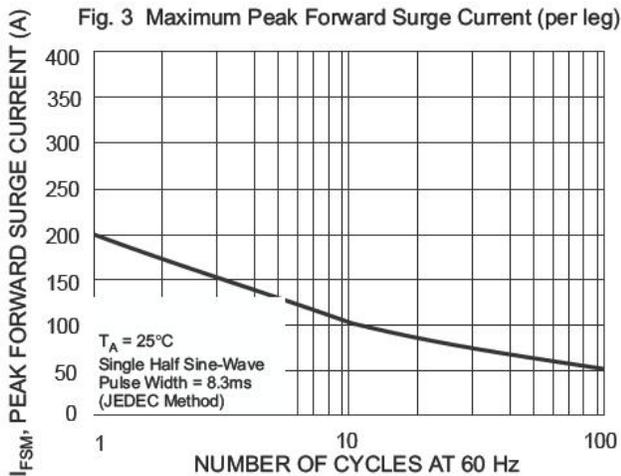
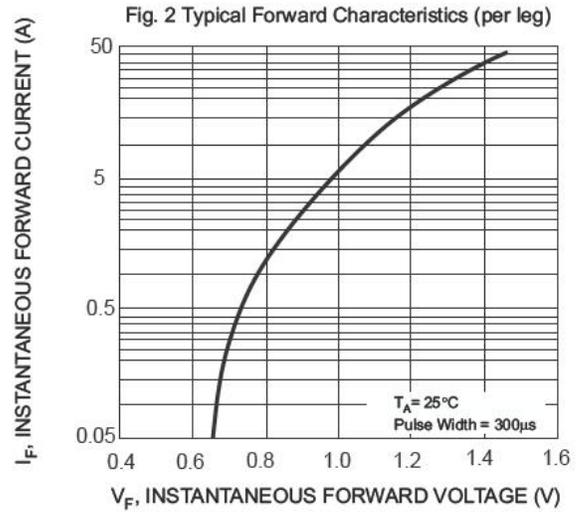
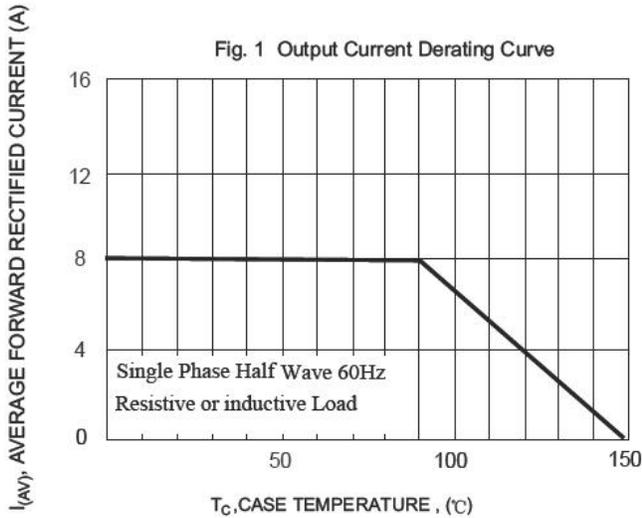
Electrical Characteristics:

Type Number	Symbol	GBU 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	Unit
Forward Voltage (per element) @ $I_F = 4A, T_A = 25^\circ C$ @ $I_F = 8A, T_A = 25^\circ C$	V_{FM}	1.0 1.1							V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 125^\circ C$	I_{RM}	5.0 500							μA
I^2t Rating for fusing (t < 8.3ms)	I^2t	166							A ² s
Typical Junction Capacitance(per leg) (Note 2)	C_J	70							pF

Thermal-Mechanical Specifications:

Type Number	Symbol	GBU 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	Unit
Typical Thermal Resistance (per leg) (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	30.9 7.3							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C
Case Style	GBU								

Note: 1. Mounted on glass epoxy PC board with 1.3mm² 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.



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Fig. 3 – Typical Forward Characteristics Per Leg

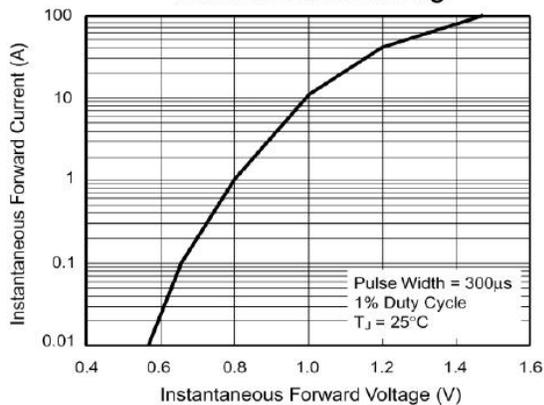


Fig. 4 – Typical Reverse Characteristics Per Leg

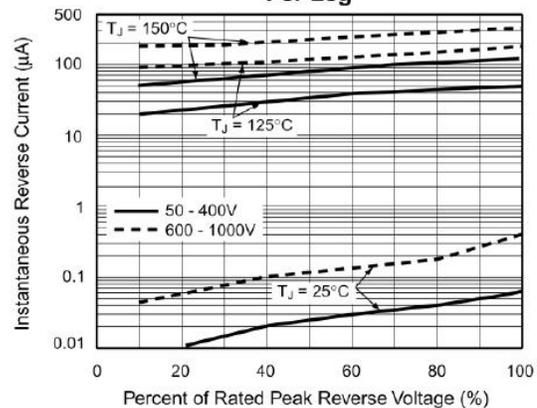


Fig. 5 – Typical Junction Capacitance Per Leg

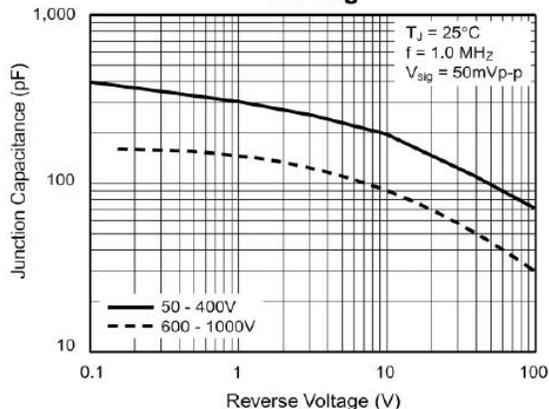
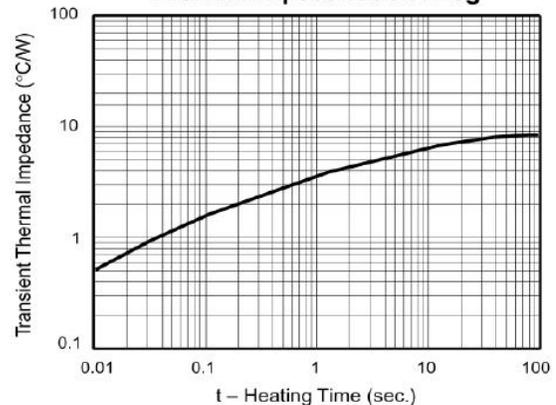


Fig. 6 – Typical Transient Thermal Impedance Per Leg





**GBU8005G
THRU
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**Technical Data
Data Sheet N1919, Rev. -**

Green Products