

CURRENT 8.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

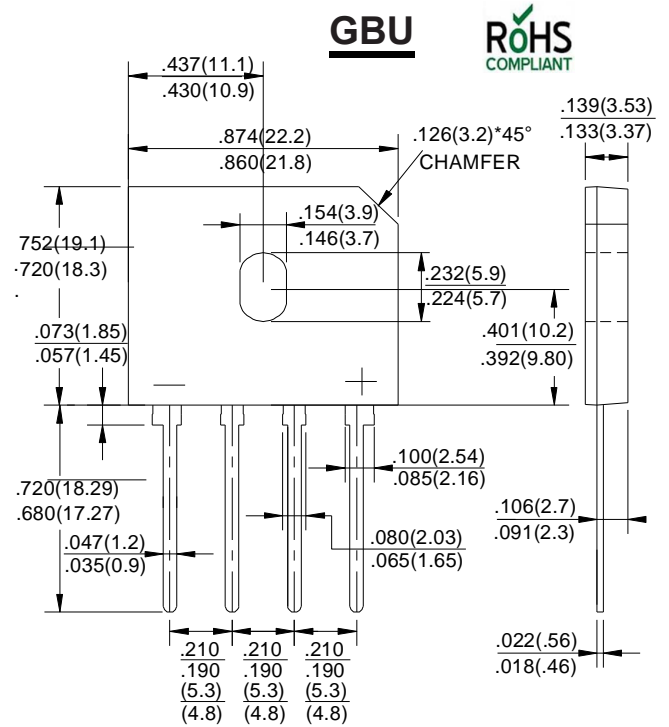
## GBU8005 THRU GBU810

### Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- Ideal for P.C. Board mounting
- High surge current capability
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

### Mechanical Data

Case: Molded plastic body  
 Terminals: Plated leads solderable per MIL-STD-202, Method 208  
 Polarity: Polarity symbols molded on body  
 Mounting Position:: Any  
 Mounting Torque: 5 in-lbs max.  
 Weight: 4.0 grams (approx)



Dimensions in inches and (millimeters)

### Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

Parameter	Symbol	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	unit	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V	
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V	
Maximum average forward (with heatsink note1 ) rectified current at TA=100 C (without heatsink)	IF(AV)	8.0				3.2				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	200								A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	166								A <sup>2</sup> sec
Typical thermal resistance per element (note 1)	RthJC	2.2								°C / W
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150								°C

### Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

Parameter	Symbol	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	Unit	
Maximum instantaneous forward voltage drop per leg at 4.0A	VF	1.1								V
Maximum DC reverse current at rated DC blocking voltage per element	IR	5.0				500				μA

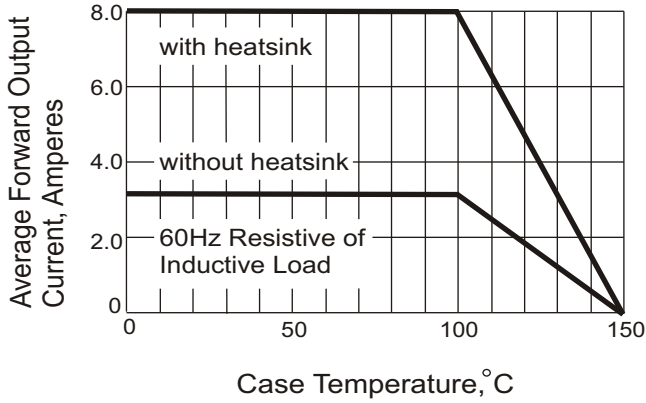
Notes: (1) Device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.

CURRENT 8.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

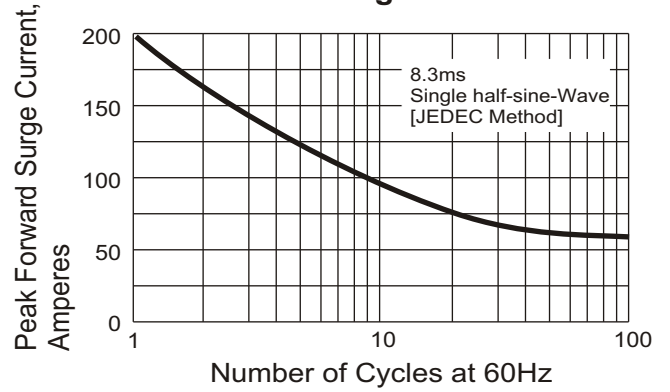
**GBU8005 THRU GBU810**

**Rating and Characteristic Curves** (  $T_A=25^{\circ}\text{C}$  Unless otherwise noted )

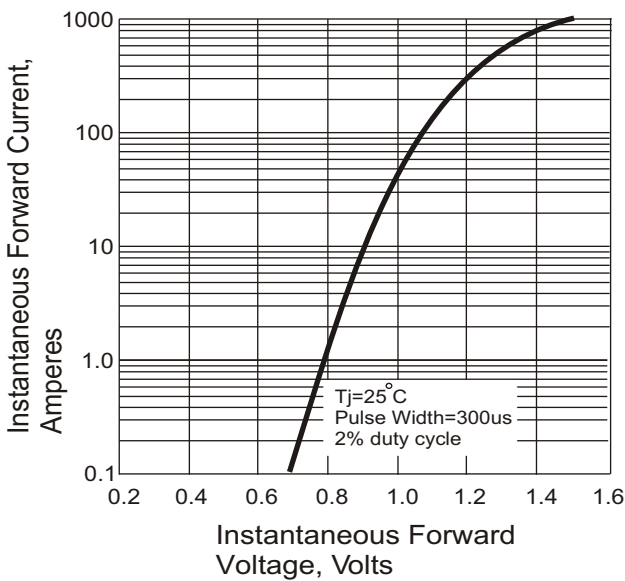
**Fig. 1 Derating Curve for Output Rectified Current**



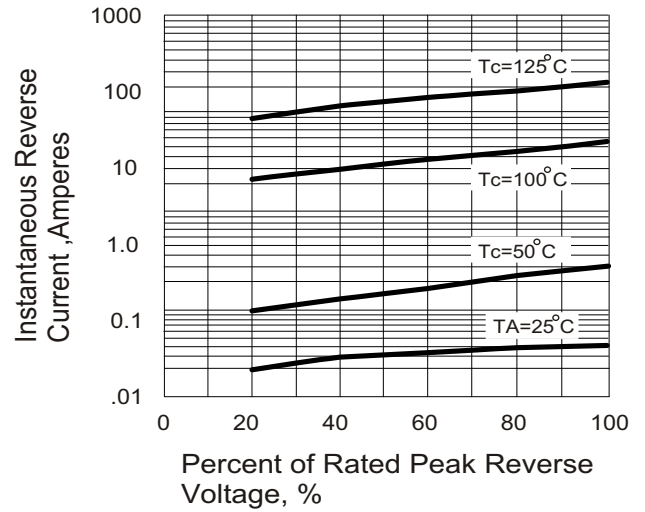
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Revers Characteristics**



**Fig. 5 Typical Junction Capacitance**

