

CURRENT 10 Ampere  
VOLTAGE RANG 50 to 1000 Volts

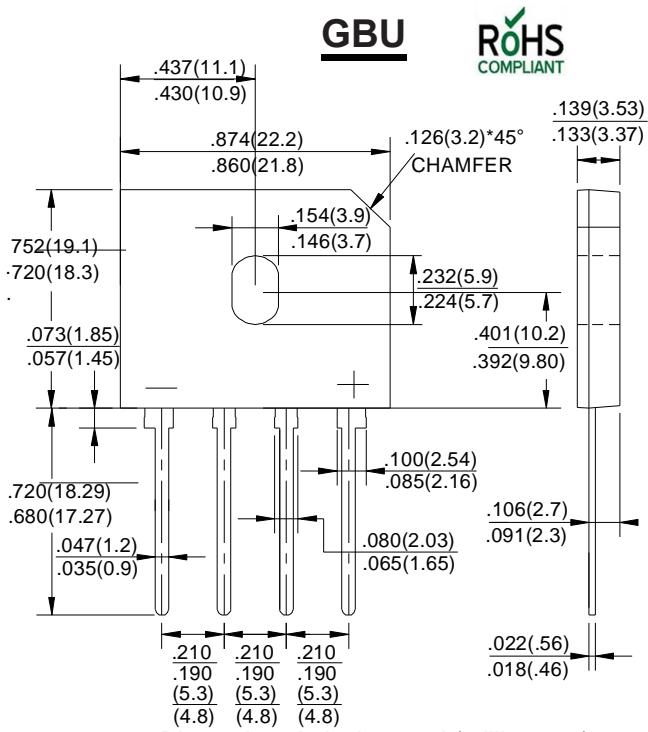
# GBU10005 THRU GBU1010

## 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 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	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 Tc=100°C (without heatsink)	IF(AV)				10.0 3.2				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM				220				A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t				200				A <sup>2</sup> sec
Typical thermal resistance per element (note 1)	RthJC				2.0				°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 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Unit
Maximum instantaneous forward voltage drop per leg at 5.0A	VF				1.0				V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR				5.0 500				μA

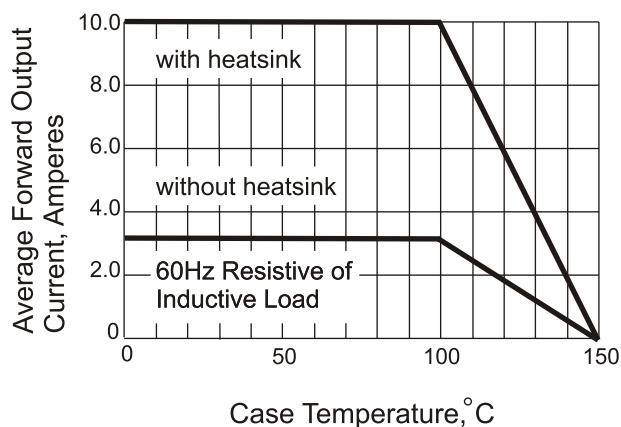
Notes: (1) Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.

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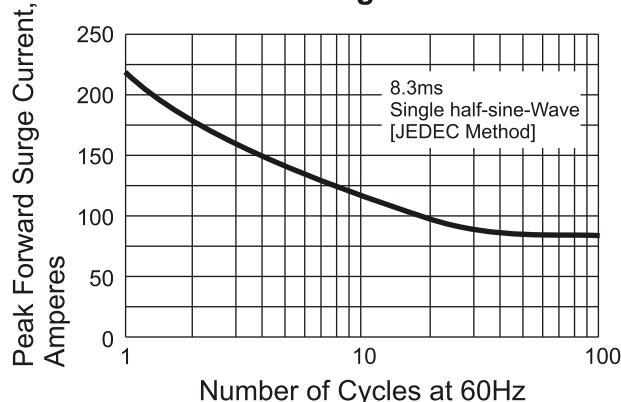
**GBU10005 THRU GBU1010**

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

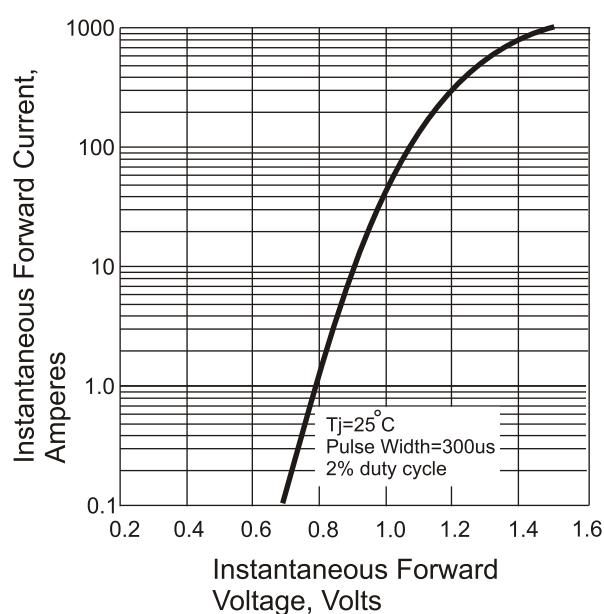
**Fig. 1 Derating Curve for Output Rectified Current**



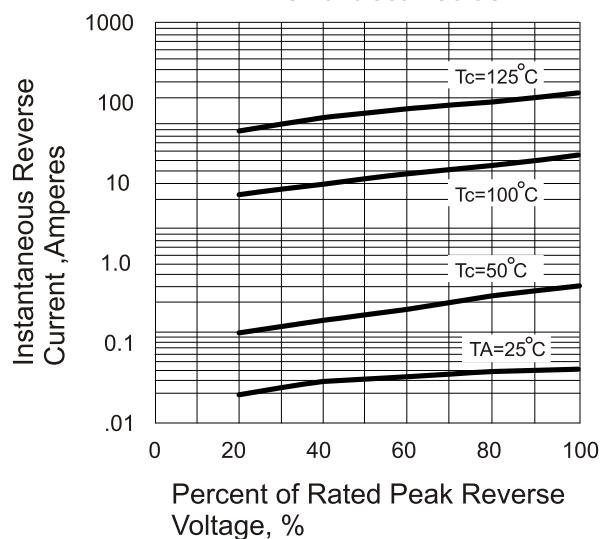
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Revers Characteristics**



**Fig. 5 Typical Junction Capacitance**

