



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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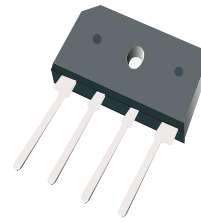


## GBU4005-G Thru. GBU410-G

Reverse Voltage: 50 to 1000V

Forward Current: 4.0A

RoHS Device

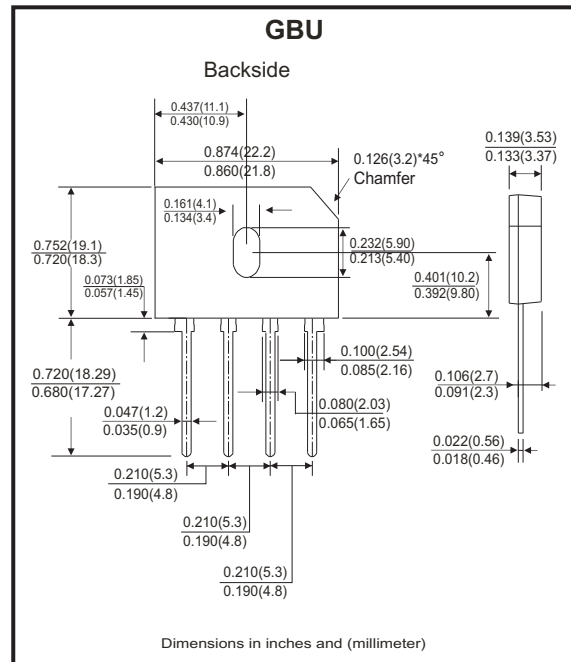


### Features

- Surge overload rating -150 amperes peak.
- Ideal for printed circuit board.
- UL recognized file # E349301

### Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBU
- Mounting position: Any
- Weight: 3.91 grams (approx.).



### 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%

Parameter	Symbol	GBU 4005-G	GBU 401-G	GBU 402-G	GBU 404-G	GBU 406-G	GBU 408-G	GBU 410-G	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward (With heatsink Note2) Rectified Current @ $T_c=100^\circ\text{C}$ (without heatsink)	$I_{AV}$					4.0				A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	$I_{FSM}$					150				A
Maximum Forward Voltage at 2.0A DC	$V_F$					1.0				V
Maximum Forward Voltage at 4.0A DC	$V_F$					1.1				V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	$I_R$					10.0				$\mu\text{A}$
$I^2T$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$					93				$\text{A}^2\text{s}$
Typical Junction Capacitance Per Element (Note 1)	$C_J$					45				pF
Typical Thermal Resistance	$R_{\theta JC}$					2.2				$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$					-55 to +150				$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$					-55 to +150				$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 50mm\*50mm\*1.6mm Cu plate heatsink.

Company reserves the right to improve product design, functions and reliability without notice.

REV: D

## Rating and Characteristics Curves (GBU4005-G Thru. GBU410-G)

Fig.1 - Forward Current Derating Curve

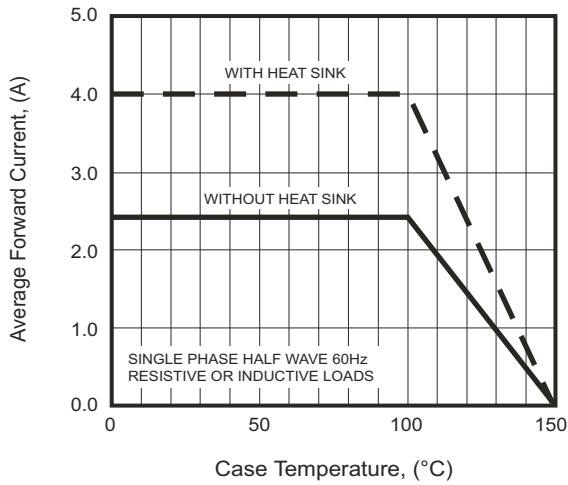


Fig.2 - Typical Forward Characteristics

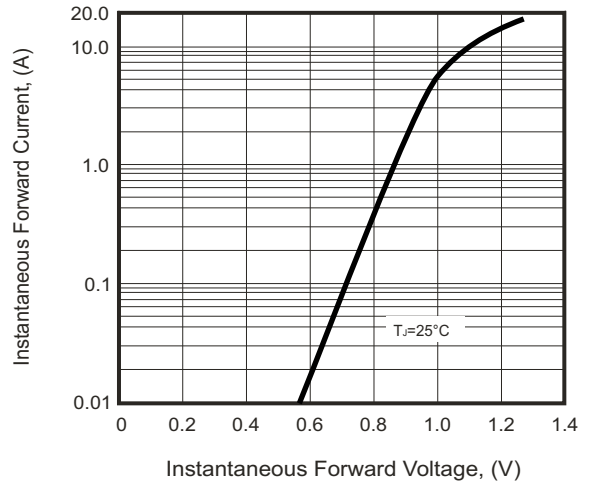


Fig.3 - Maximum Non-Repetitive Surge Current

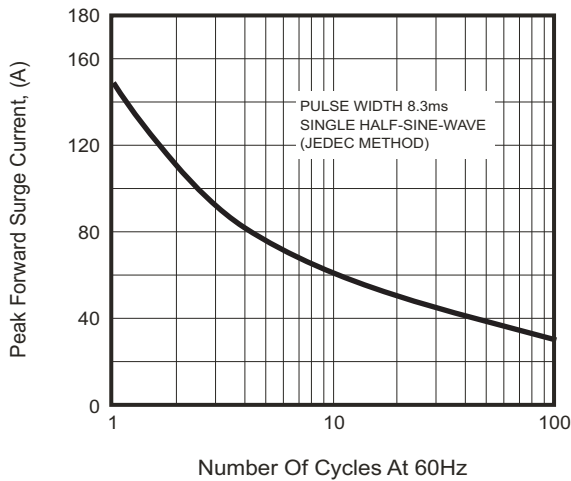


Fig.4 - Typical Junction Capacitance

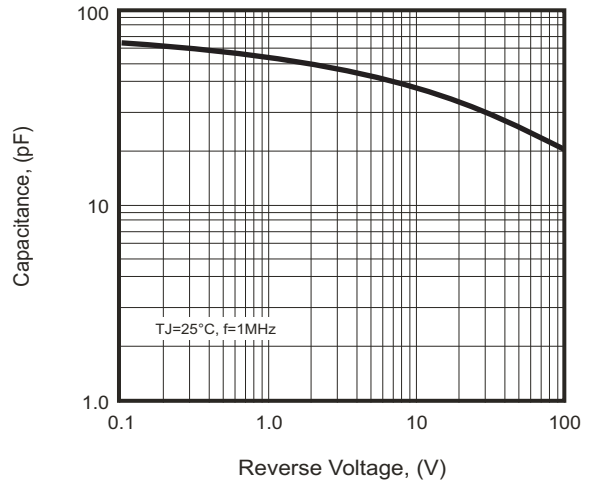
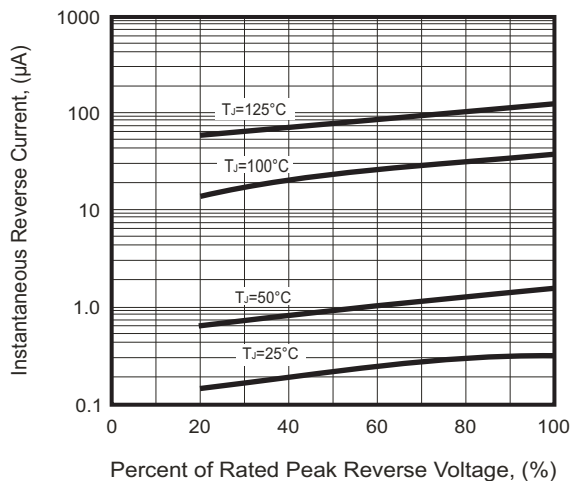


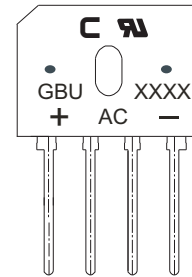
Fig.5 - Typical Reverse Characteristics



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## Marking Code

Part Number	Marking code
GBU4005-G	GBU4005
GBU401-G	GBU401
GBU402-G	GBU402
GBU404-G	GBU404
GBU406-G	GBU406
GBU408-G	GBU408
GBU410-G	GBU410



XXX / XXXX = Product type marking code  
**C** = Compchip Logo

## Standard Packaging

Case Type	TUBE PACK	
	TUBE ( pcs )	Carton ( pcs )
GBU	20	1,000