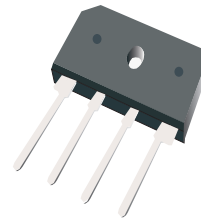


## GBU4005-G Thru. GBU410-G

Reverse Voltage: 50 to 1000V

Forward Current: 4.0A

RoHS Device

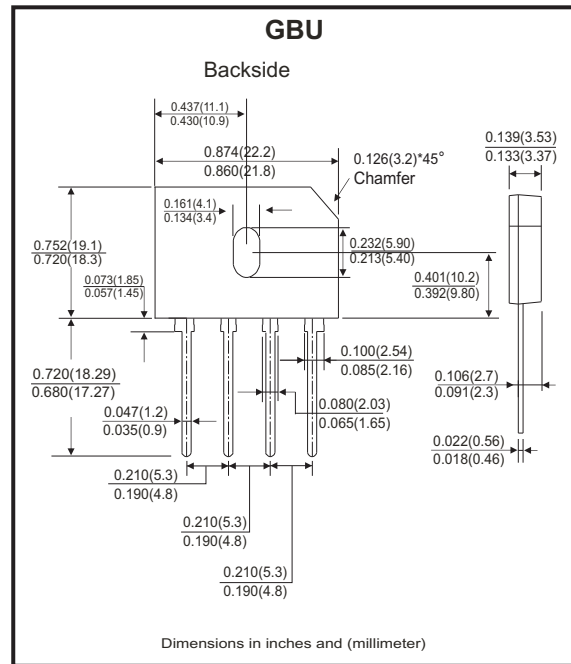


### Features

- 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

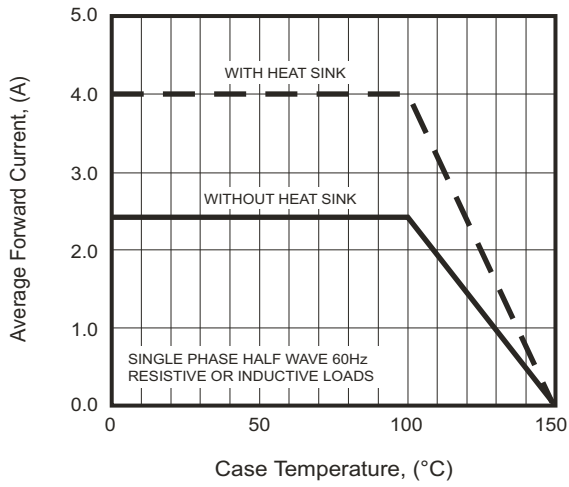


Fig.2 - Typical Forward Characteristics

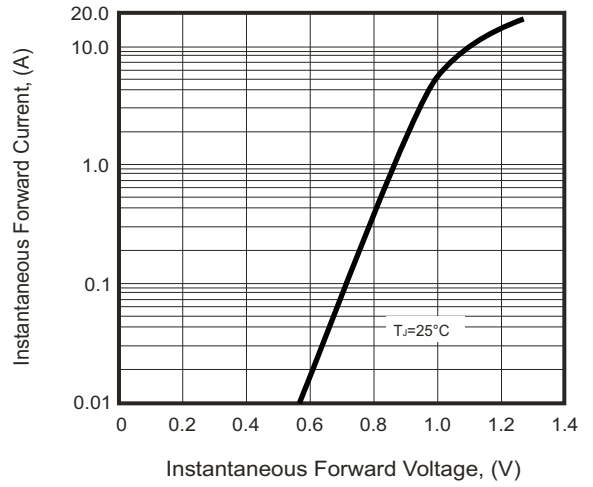


Fig.3 - Maximum Non-Repetitive Surge Current

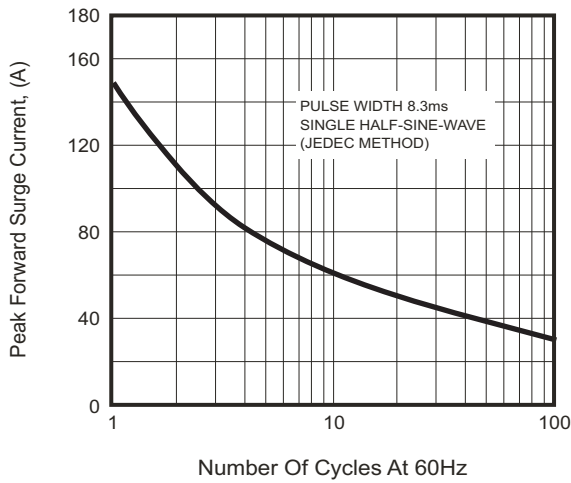


Fig.4 - Typical Junction Capacitance

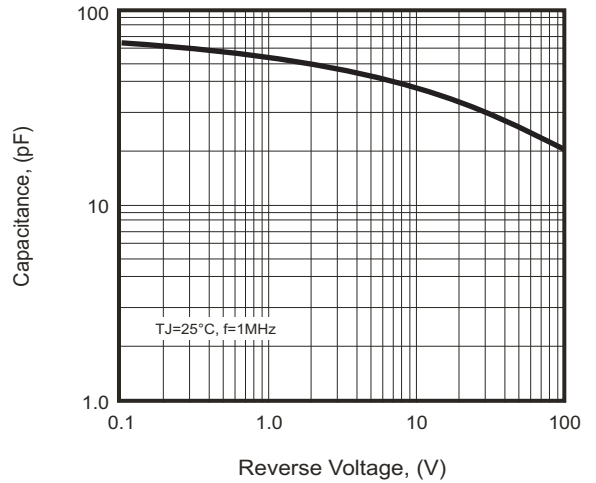
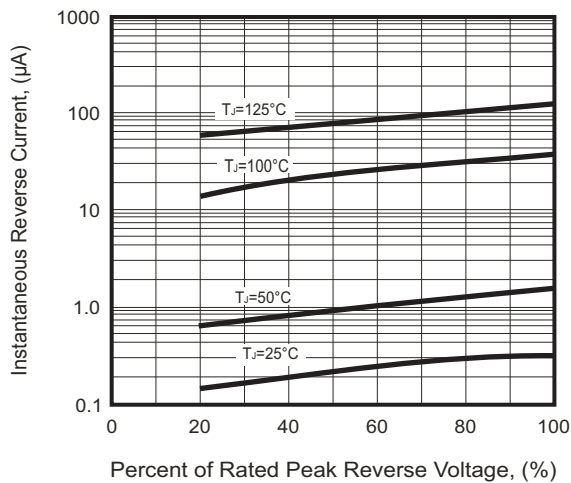


Fig.5 - Typical Reverse Characteristics



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