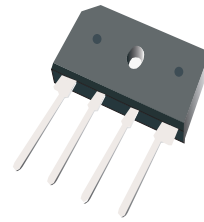


## GBU6005-G Thru. GBU610-G

Reverse Voltage: 50 to 1000V

Forward Current: 6.0A

RoHS Device



### Features

- Surge overload rating -175 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 6005-G	GBU 601-G	GBU 602-G	GBU 604-G	GBU 606-G	GBU 608-G	GBU 610-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 @Tc=100°C (without heatsink)	$I_{AV}$					6.0				A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	$I_{FSM}$					175				A
Maximum Forward Voltage at 3.0A DC	$V_F$					1.0				V
Maximum DC Reverse Current @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C	$I_R$					10.0				$\mu A$
$I^2 T$ Rating for Fusing(t<8.3ms)	$I^2 t$					127				A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note 1)	$C_J$					50				pF
Typical Thermal Resistance	$R_{\theta JC}$					2.2				°C/W
Operating Temperature Range	$T_J$					-55 to +150				°C
Storage Temperature Range	$T_{STG}$					-55 to +150				°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm\*75mm\*1.6mm Cu plate heatsink.

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

REV: D

## Rating and Characteristics Curves (GBU6005-G Thru. GBU610-G)

Fig.1 - Forward Current Derating Curve

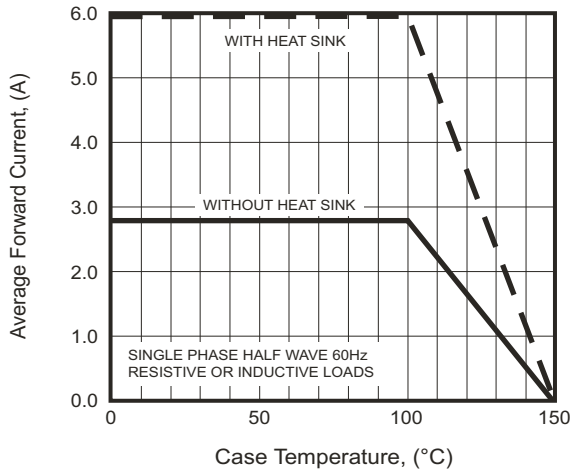


Fig.2 - Typical Forward Characteristics

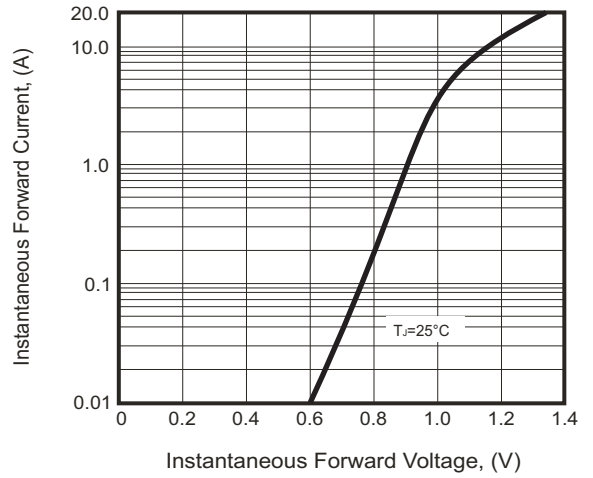


Fig.3 - Maximum Non-Repetitive Surge Current

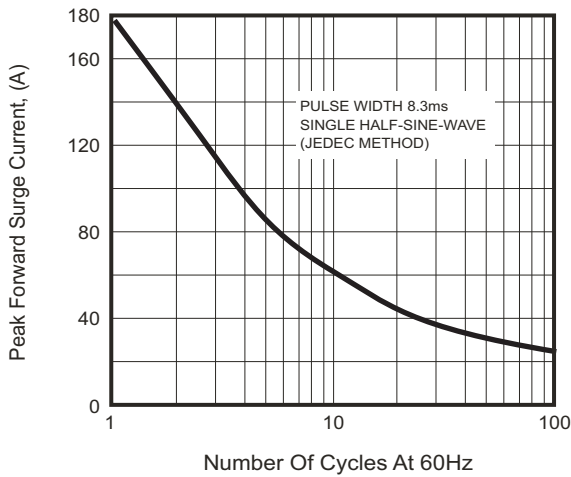


Fig.4 - Typical Junction Capacitance

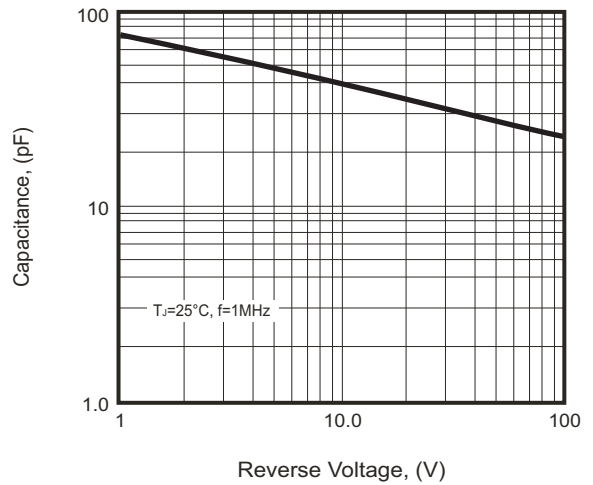
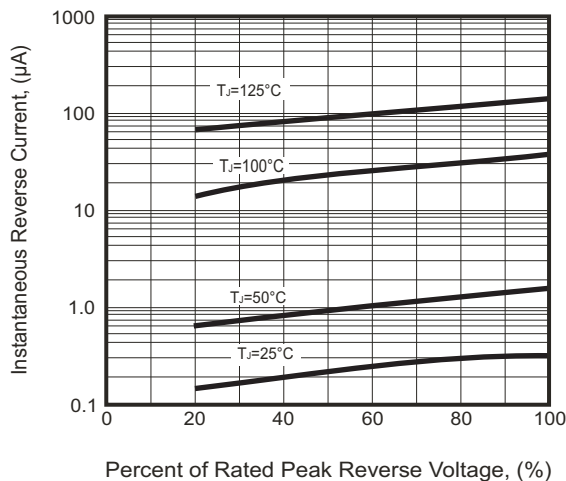


Fig.5 - Typical Reverse Characteristics



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