

Glass Passivated Bridge Rectifiers

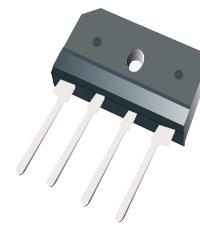
Comchip
SMD Diode Specialist

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.

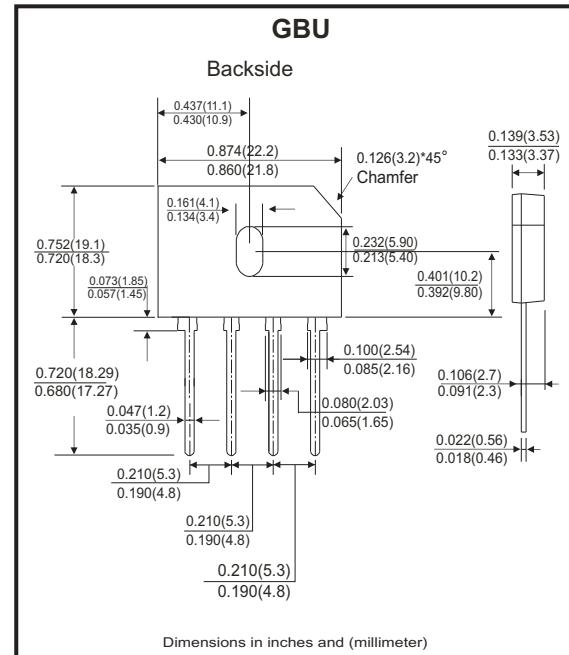
Mechanical Data

-Epoxy: U/L 94V-0 rate flame retardant.

-Case: Molded plastic, GBU

-Mounting position: Any

-Weight: 3.91grams



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 @T _c =100°C (without heatsink)	I _(AV)				6.0				A
					2.8				
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 @T _j =25°C At Rate DC Blocking Voltage @T _j =125°C	I _R				10.0				µA
					500				
I ² T Rating for Fusing(t<8.3ms)	I ² t				127				A ² s
Typical Junction Capacitance Per Element (Note 1)	C _J				50				pF
Typical Thermal Resistance	R _{θJC}				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: B

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

Fig.1 - Forward Current Derating Curve

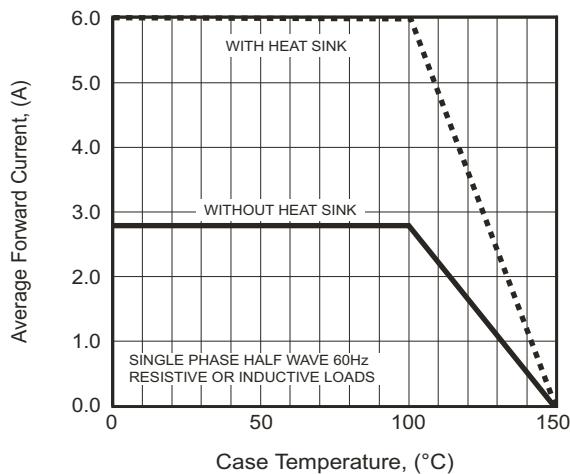


Fig.2 - Typical Forward Characteristics

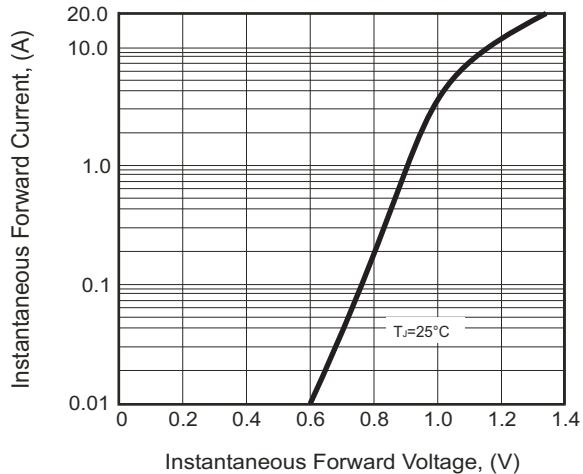


Fig.3 - Maximum Non-Repetitive Surge Current

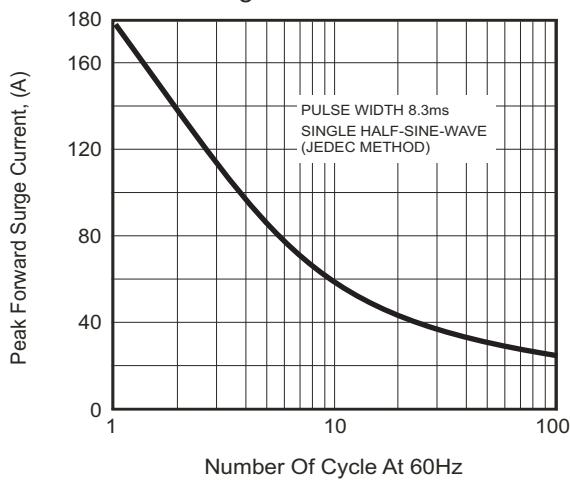


Fig.4 - Typical Junction Capacitance

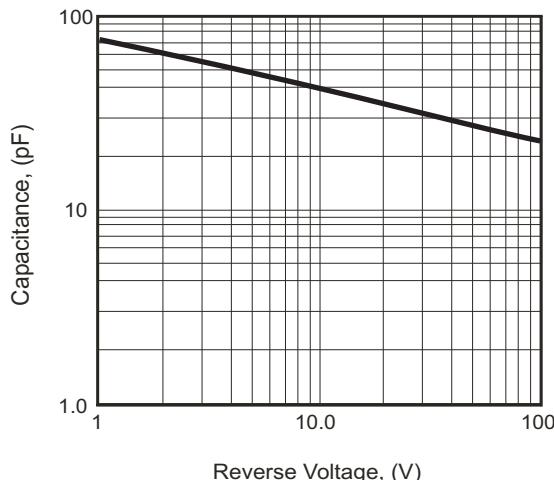
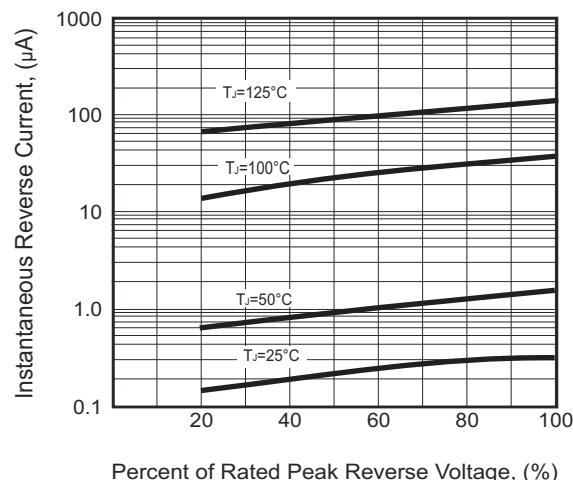


Fig.5 - Typical Reverse Characteristics

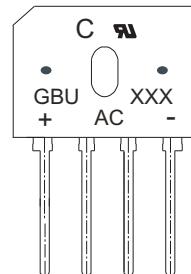


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Marking Code

Part Number	Marking code
GBU6005-G	GBU6005
GBU601-G	GBU601
GBU602-G	GBU602
GBU604-G	GBU604
GBU606-G	GBU606
GBU608-G	GBU608
GBU610-G	GBU610



XXX / XXXX = Product type marking code
C = Comchip Logo

Standard Packaging

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