

Glass Passivated Bridge Rectifiers



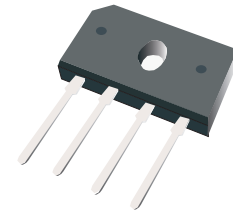
SMD Diodes Specialist

GBU4005-G Thru. GBU410-G

Reverse Voltage: 50 to 1000V

Forward Current: 4.0A

RoHS Device

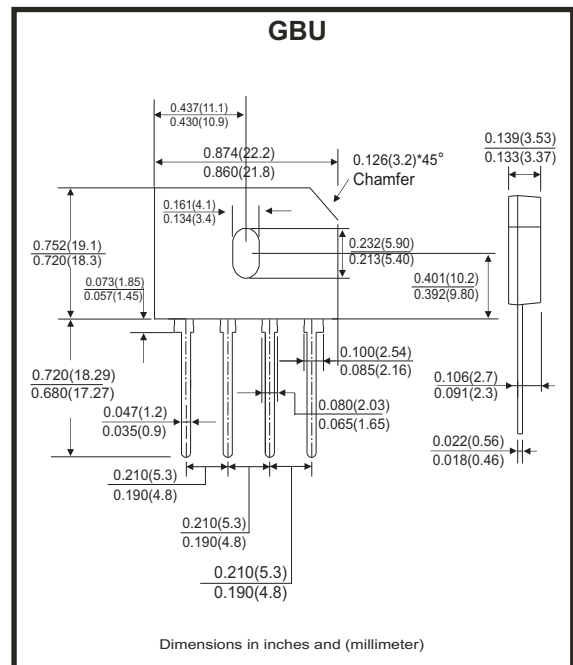


Features

- Surge overload rating - 150 amperes peak.
- Ideal for printed circuit board.

Mechanical Data

- Epoxy: U/L 94-V0 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 4005-G	GBU 401-G	GBU 402-G	GBU 404-G	GBU 406-G	GBU 408-G	GBU 410-G	Unit
Maximum Reverse Peak Repetitive Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input 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 hestsink)	I_{AV}					4.0			A
						2.4			
Peak Forward Surge Current , 8.3ms Single Half Sine-Wave Super Imposed On Rated Load	I_{FSM}					150			A
Maximum Forward Voltage Drop Per Bridge Element at 4.0A Peak	V_F					1.1			V
Maximum Reverse Current @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C	I_R					10.0			μA
						500			
I ² T Rating for Fusing(t<8.3ms)	I^2t					93			A ² s
Typical Junction Capacitance Per Element (Note 1)	C_J					45			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 50mm*50mm*1.6mm Cu plate heatsink.

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

Fig.1- Forward Current Derating Curve

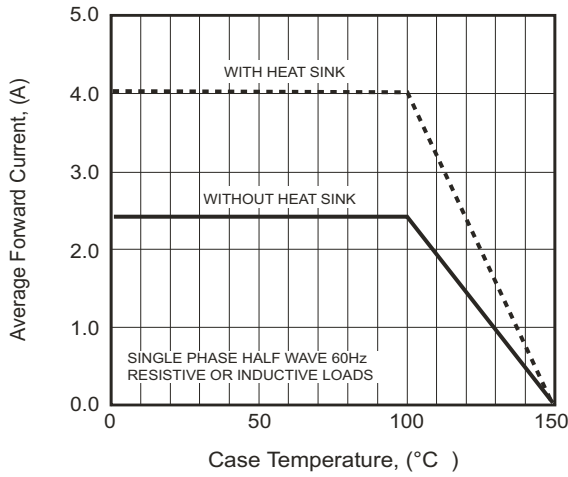


Fig.2- Typical Forward Characteristics

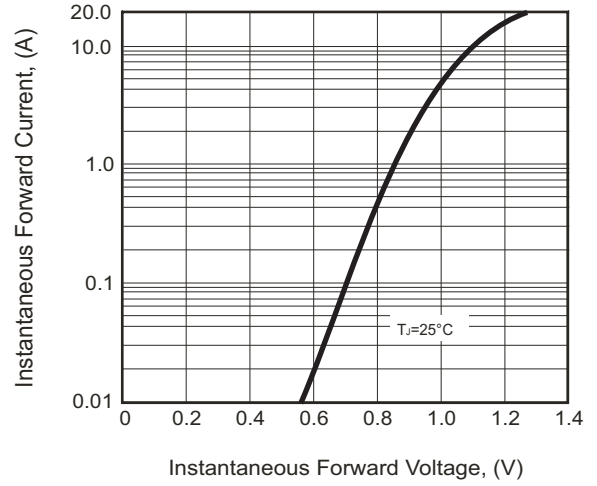


Fig.3- Maximum NON-Repetitive Surge Current

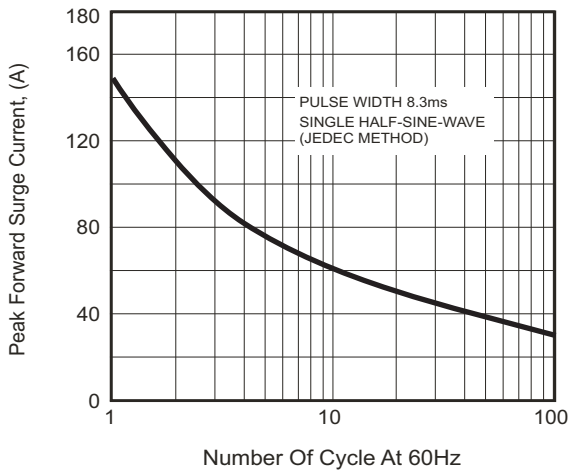


Fig.4- Typical Junction Capacitance

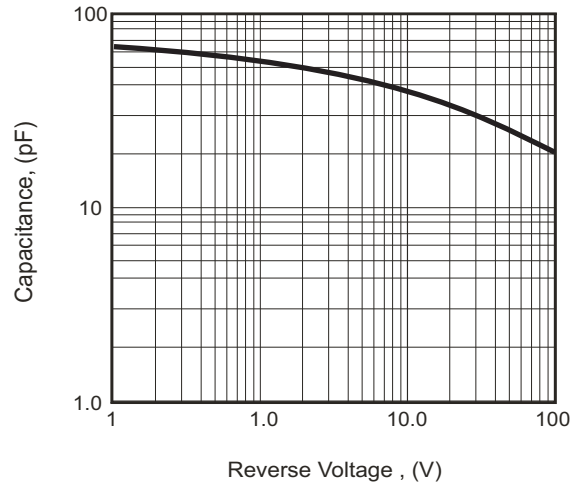
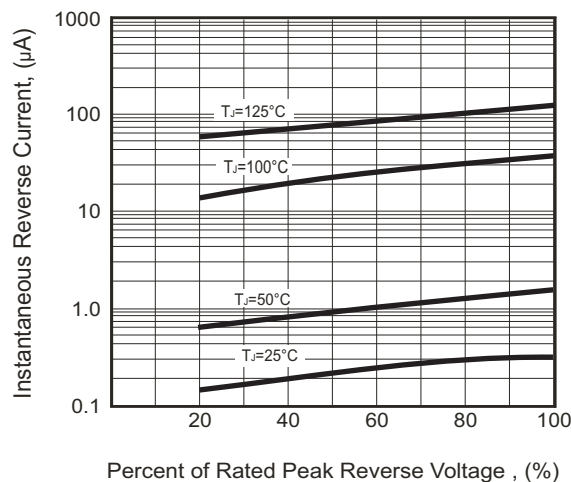
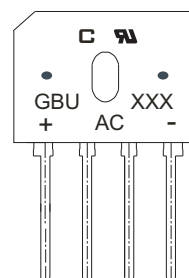


Fig.5- Typical Reverse Characteristics



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
 □ = Compchip Logo

Standard Package

Case Type	TUBE	TUBE SIZE	BOX	CARTON
	(EA)	(mm)	(EA)	(EA)
GBU	20	474*42*7	1000	2000