

GBU4005~GBU410

4.0 Amp Glass Passivated Bridge Rectifiers

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability

Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

Applications

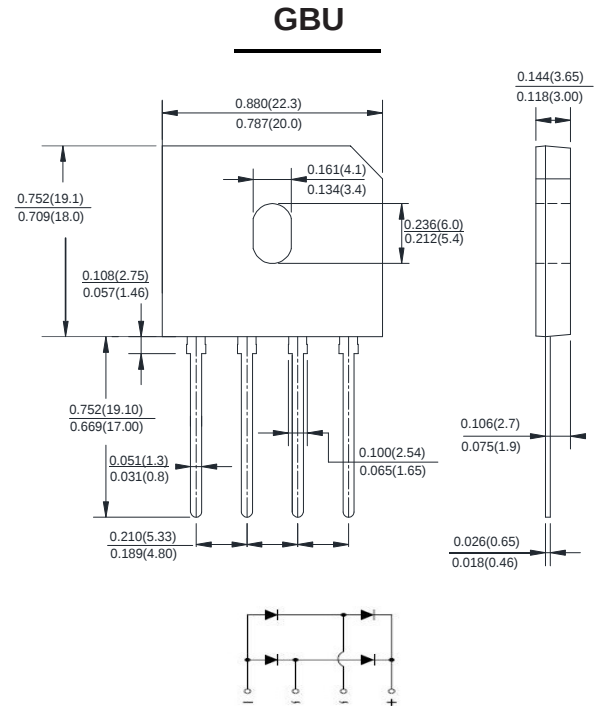
- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

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%.



Characteristics	Symbol	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410	Unit
Maximum Repetitive 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 Note 2)	I _(AV)	4.0							A
Rectified Current @ T _c =100℃ (without heatsink)		2.4							
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	125							A
I ² t Rating for Fusing (t<8.3mS)	I ² t	64.8							A ² s
Peak Forward Voltage Per Diode at 2A DC	V _F	0.95							V
Peak Forward Voltage per Diode at 4A DC	V _F	1.05							V
Maximum DC Reverse Current at Rated @T _J =25℃	I _R	5.0							μA
DC Blocking Voltage per Diode @T _J =125℃		500							
Typical Junction Capacitance Per Diode (Note1)	C _J	45							pF
Typical Thermal Resistance to Ambient (without heatsink)	R _{θJA}	27							℃/W
Typical Thermal Resistance to case (with heatsink (Note2))	R _{θJC}	2.2							℃/W
Typical Thermal Resistance to lead (without heatsink)	R _{θJL}	4.5							℃/W
Operating Junction Temperature Range	T _J	-55 to +150							℃
Storage Temperature Range	T _{STG}	-55 to +150							℃

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 50mm*50mm*1.6mm Cu plate heatsink.

Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

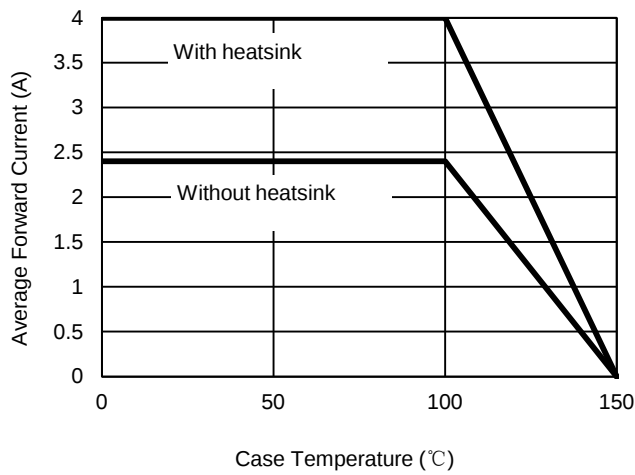


Fig. 2 - Maximum Non-Repetitive Surge Current

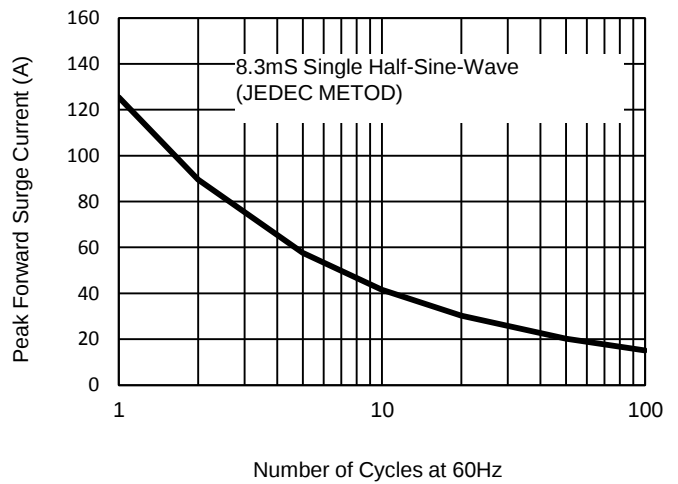


Fig. 3 - Typical Reverse Characteristics

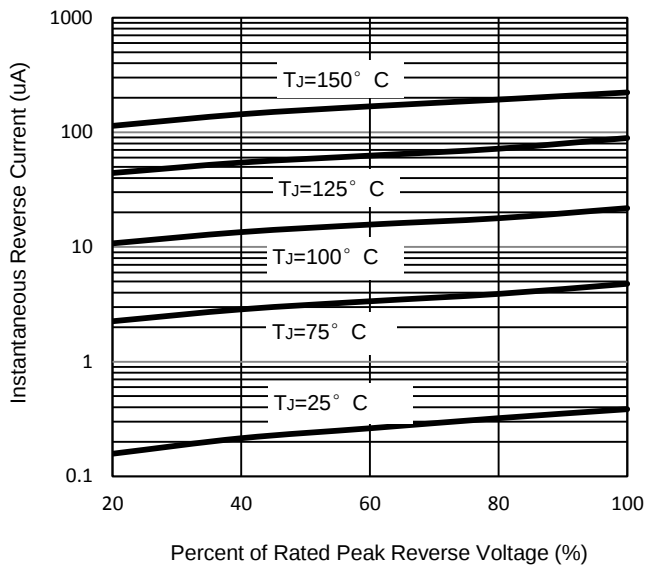


Fig. 4 - Typical Forward Characteristics

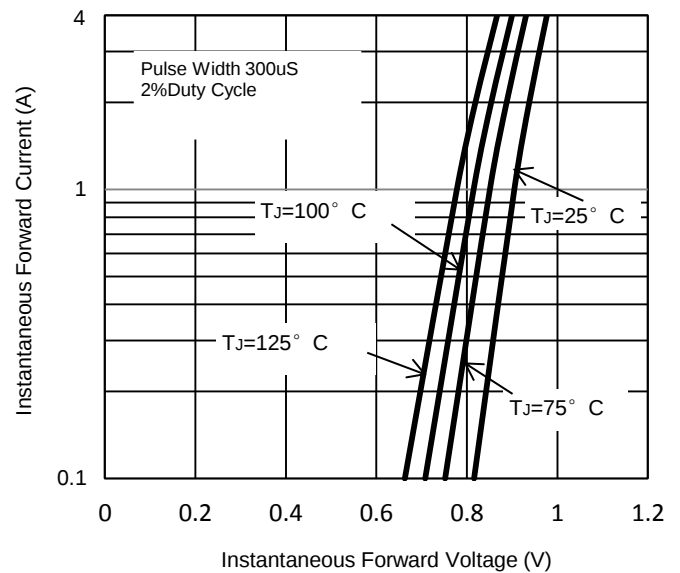


Fig. 5 - Typical Junction Capacitance

