

GBJ50005 THRU GBJ5010

Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 50 Amperes

Features

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

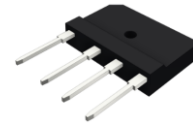
Mechanical Data

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

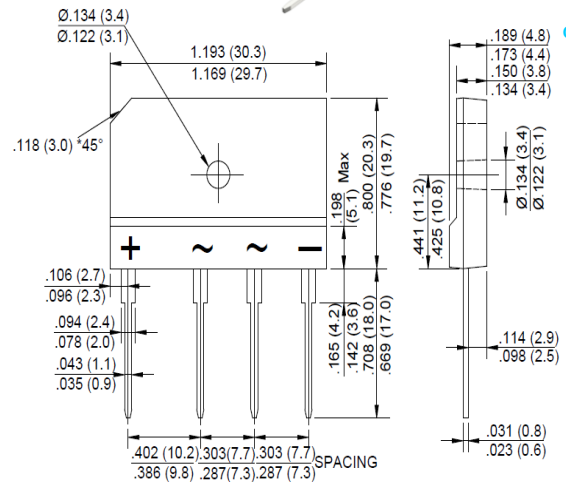
Applications

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

GBJ



RoHS
COMPLIANT



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	GBJ	GBJ	GBJ	GBJ	GBJ	GBJ	GBJ	Unit
		50005	5001	5002	5004	5006	5008	5010	
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) Rectified Current @ T _c =100°C	I _(AV)	50							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	400							A
I ² t Rating for Fusing (t<8.3mS)	I ² t	660							A ² s
Peak Forward Voltage per Diode at 25A DC	V _F	1.1							V
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	10.0							μA
DC Blocking Voltage per Diode @T _J =125°C		500							
Typical Thermal Resistance to case (Note2)	R _{θJC}	0.6							°C/W
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Notes: 1.Device mounted on 300mm*300mm*1.6mm Cu plate heatsink.

2.The typical data above is for reference only

Rating and Characteristic Curves

GBJ50005 THRU GBJ5010

Fig. 1 - Forward Current Derating Curve

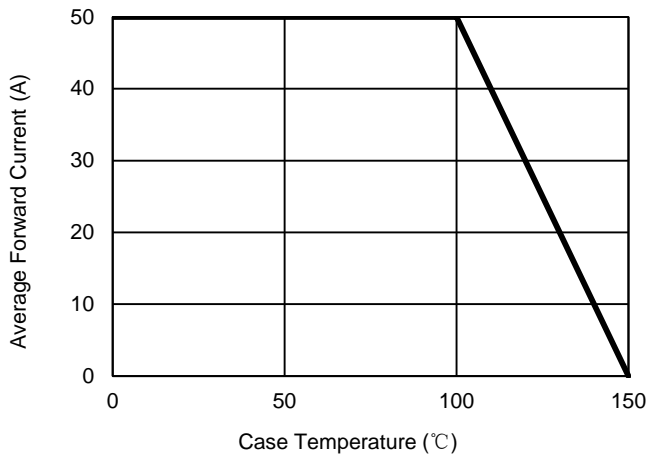


Fig. 2 - Maximum Non-Repetitive Surge Current

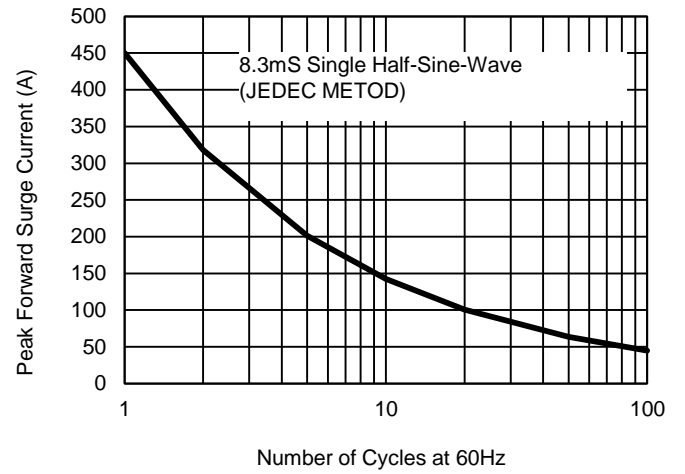


Fig. 3 - Typical Reverse Characteristics

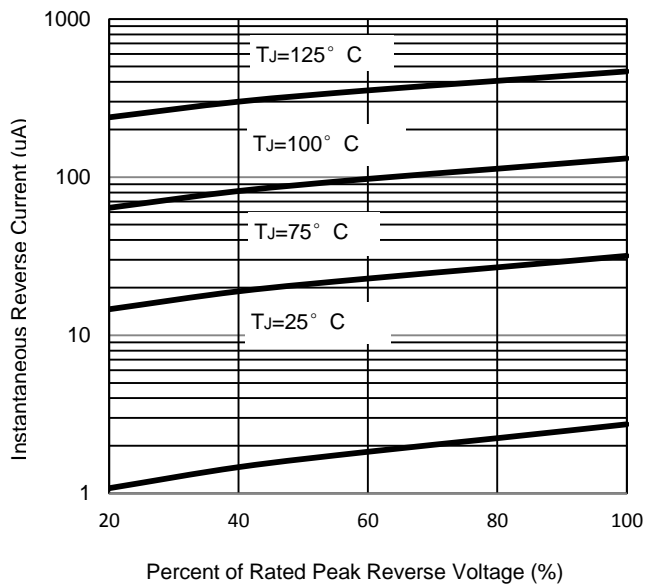
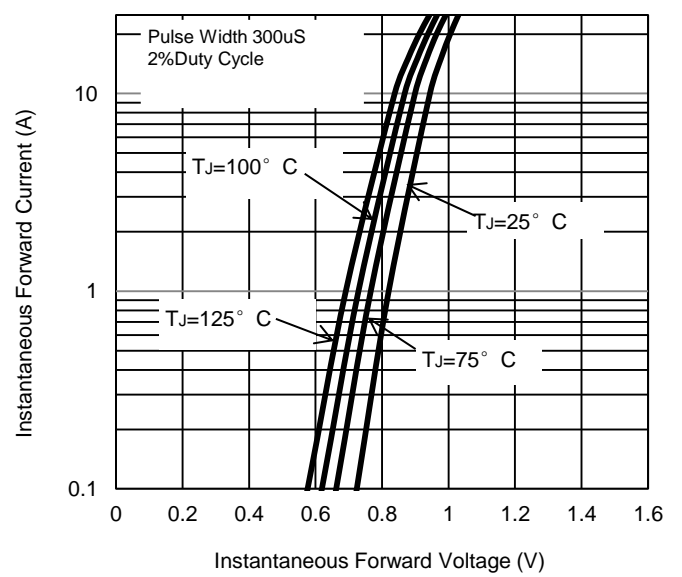


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

