

# **GBJ50005 THRU GBJ5010**

#### Glass Passivated Bridge Rectifiers

## Reverse Voltage - 50 to 1000 Volts

## Forward Current - 50 Amperes

#### Features

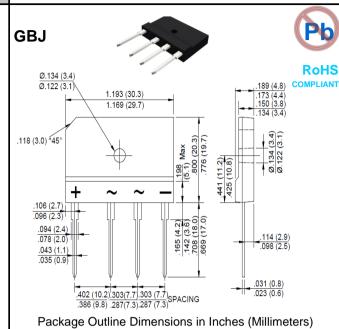
- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability

#### **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.



# **Maximum Ratings and Electrical Characteristics**

Rating at 25  $^\circ\!\!\mathbb{C}$  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	Unit
	-	50005	5001	5002	5004	5006	5008	5010	
Maximum Repetitive Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2)	I(AV)				50				А
Rectified Current @ Tc=100°C	I(AV)	50							~
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave,	IFSM	IFSM 400							А
Superimposed on Rated Load (JEDEC Method)	IFSIM	1FSM 400							~
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	l <sup>2</sup> t	660							A <sup>2</sup> s
Peak Forward Voltage per Diode at 25A DC	VF	1.1							V
Maximum DC Reverse Current at Rated @TJ=25°C	In	10.0							
DC Blocking Voltage per Diode $@T_J=125^{\circ}C$	IK	500							μΑ
Typical Thermal Resistance to case (Note2)	Rejc	0.6							°C/W
Operating Junction Temperature Range	TJ	-55 to +150							°C
Storage Temperature Range	Tstg	-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



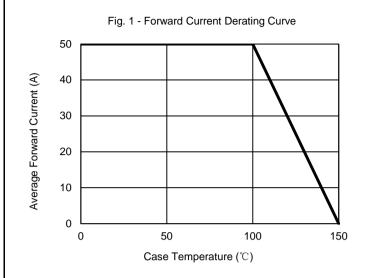
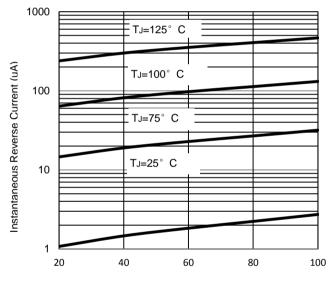
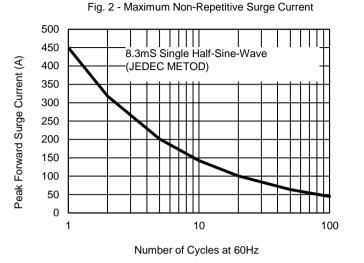


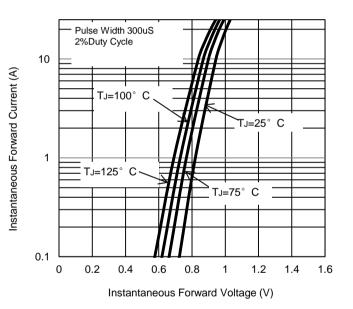
Fig. 3 - Typical Reverse Characteristics



Percent of Rated Peak Reverse Voltage (%)







The curve above is for reference only.

GBJ50\*-U-00/99-00/01 Rev. 9, 22-Apr-2019



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