



Glass Passivated 3 Phase Bridge Rectifier

Reverse Voltage - 800 to 1600Volts
Forward Current - 50 Amperes

Features

- Low forward voltage drop
- High current capability
- High reliability
- Meet UL flammability classification 94V-0

Mechanical Data

- Case: Epoxy case with heat sink
- Polarity: Symbol marked on body
- Mounting position:
- Bolt pass through the mounting hole of body
then fixto heat sink

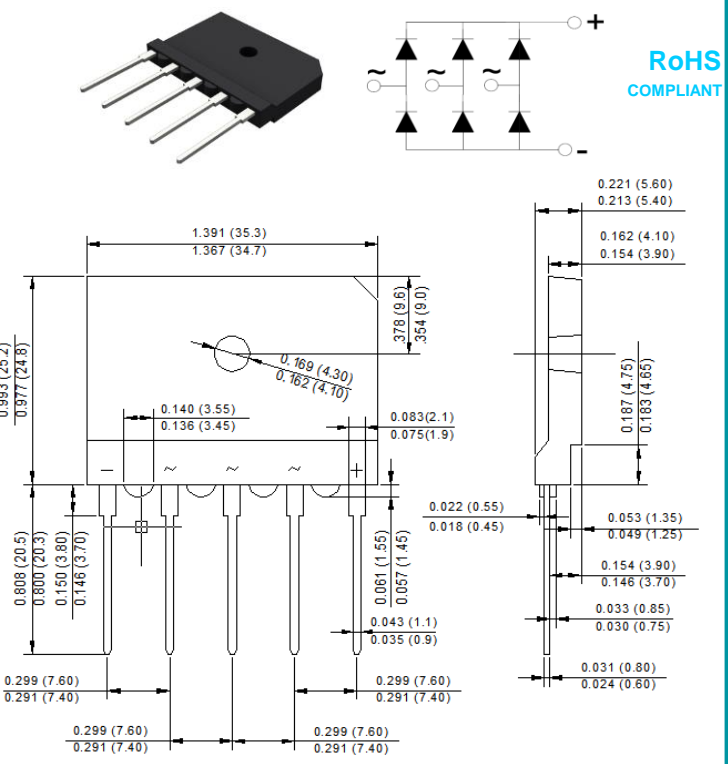
- Maximum Mounting torque (M4)¹: 0.8 N.m

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Applications

- For use in high power supply inverters,servo motor and welding machine applications

SGBJ



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	SGBJ50 -08	SGBJ50 -10	SGBJ50 -12	SGBJ50 -16	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	800	1000	1200	1600	V
Maximum RMS Voltage	VRMS	560	700	840	1120	V
Maximum DC Blocking Voltage	VDC	800	1000	1200	1600	V
Peak Non-Repetitive Reverse Voltage	VRSM	900	1100	1300	1700	V
Maximum Average Forward Rectified Current @Tc=110 ℃	I(AV)	50				A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	450				A
I ² t Rating for Fusing (t<8.3mS)	I ² t	840				A ² S
Peak Forward Voltage per Diode at 25A DC	VF	1.1				V
Maximum DC Reverse Current at Rated @Tj=25℃	IR	5				μA
DC Blocking Voltage per Diode @Tj=150℃		3				mA
Typical Thermal Resistance to Case	RθJC	0.8				℃/W
RMS Isolation Voltage from Case to Lead	VISO	2500				V
Operating Junction Temperature Range	TJ	-55 to +150				℃
Storage Temperature Range	TSTG	-55 to +150				℃

Notes: 1. Surface roughness of Heat sink <0.05mm
2. The typical data above is for reference only



Fig. 1 - Forward Current Derating Curve

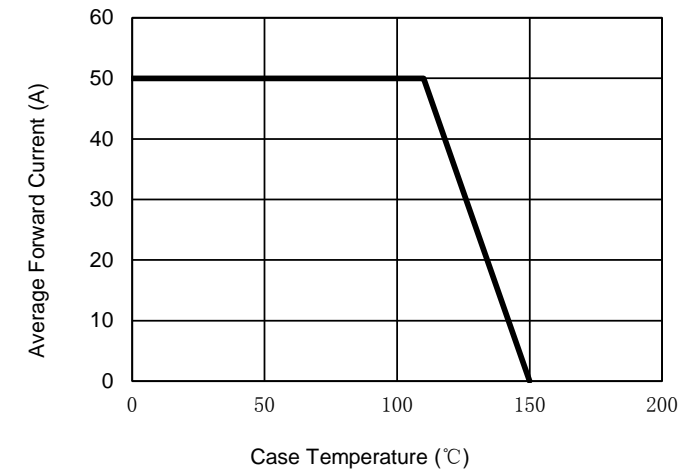


Fig. 2 - Maximum Non-Repetitive Surge Current

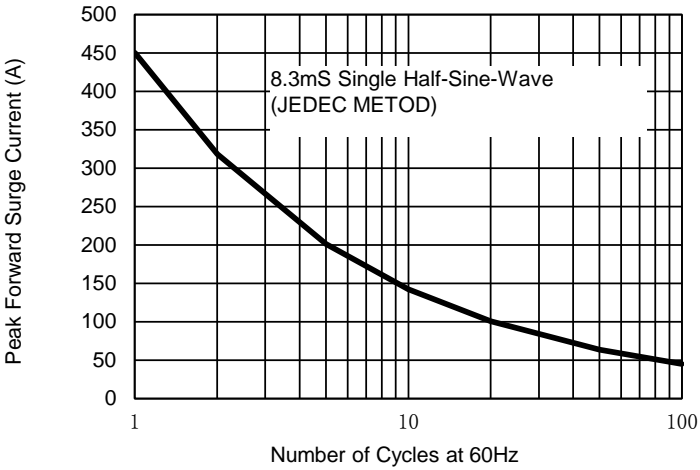


Fig. 3 - Typical Reverse Characteristics

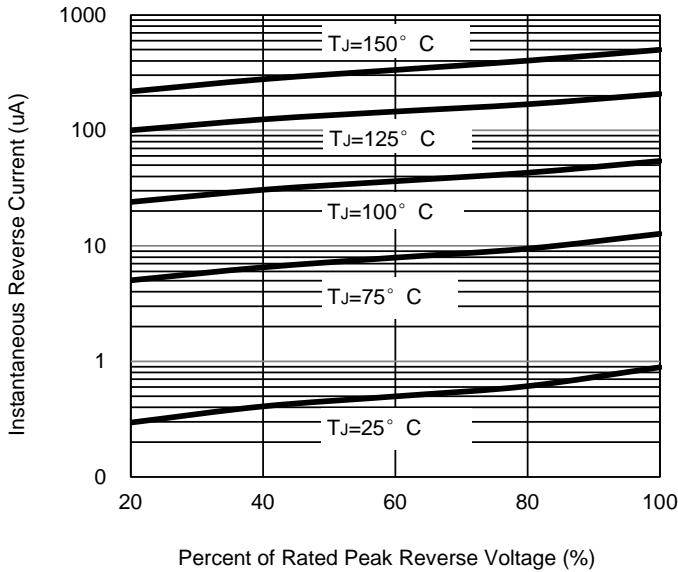
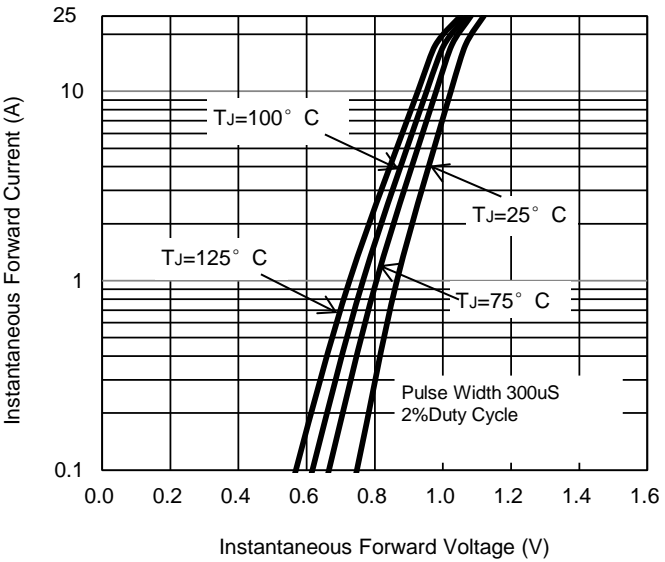


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



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