SGBJ50 SERIES

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

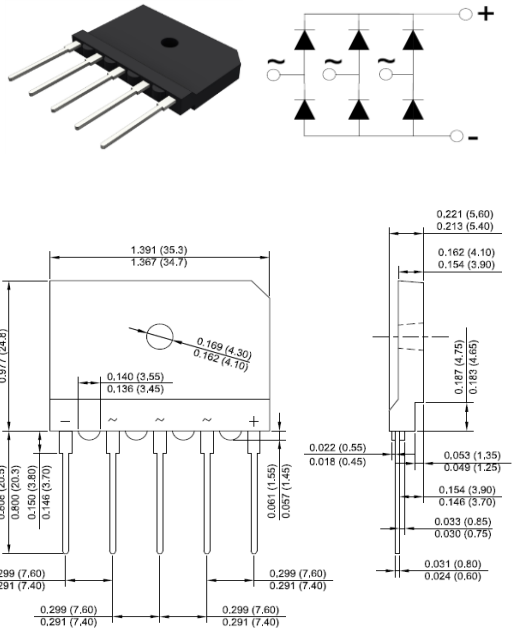
- Case: Epoxy case with heat sink
- Polarity: Symbol marked on body
- Mounting position:
- Bolt pass through the mounting hole of body then fixto heat sink
- Maximum Mounting torque (M4)[1]: 0.8 N.m

Note: Products with logo HY® or HY 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	V_{RRM}	800	1000	1200	1600	V
Maximum RMS Voltage	V_{RMS}	560	700	840	1120	V
Maximum DC Blocking Voltage	V_{DC}	800	1000	1200	1600	V
Peak Non-Repetitive Reverse Voltage	V_{RSM}	900	1100	1300	1700	V
Maximum Average Forward Rectified Current @T_C=110 ℃	$I_{(AV)}$	50				A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	450				A
I^2t Rating for Fusing (t<8.3mS)	I^2t	840				A^2S
Peak Forward Voltage per Diode at 25A DC	V_F	1.1				V
Maximum DC Reverse Current at Rated @T_J=25℃	I_R	5				μA
DC Blocking Voltage per Diode @T_J=150℃		3				mA
Typical Thermal Resistance to Case	$R_{\theta JC}$	0.8				℃/W
RMS Isolation Voltage from Case to Lead	V_{ISO}	2500				V
Operating Junction Temperature Range	T_J	-55 to +150				℃
Storage Temperature Range	T_{STG}	-55 to +125				℃

Notes: 1. Surface roughness of Heat sink ＜0.05mm

2. The typical data above is for reference only

Fig. 1 - Forward Current Derating Curve

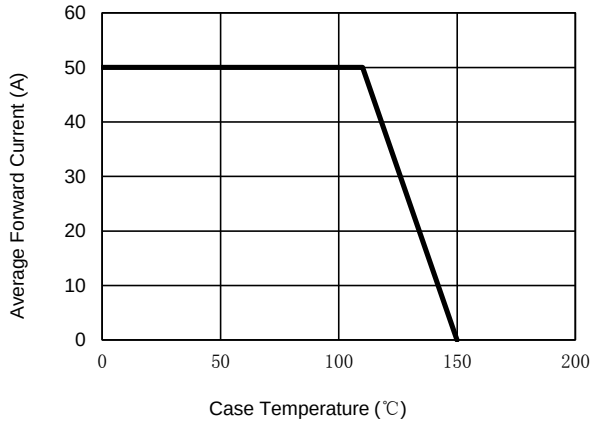


Fig. 2 - Maximum Non-Repetitive Surge Current

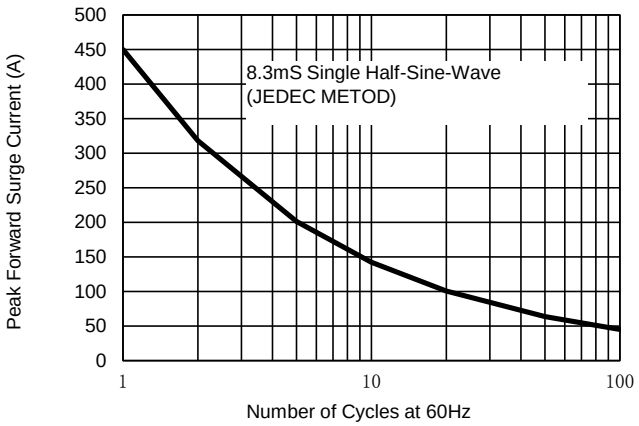


Fig. 3 - Typical Reverse Characteristics

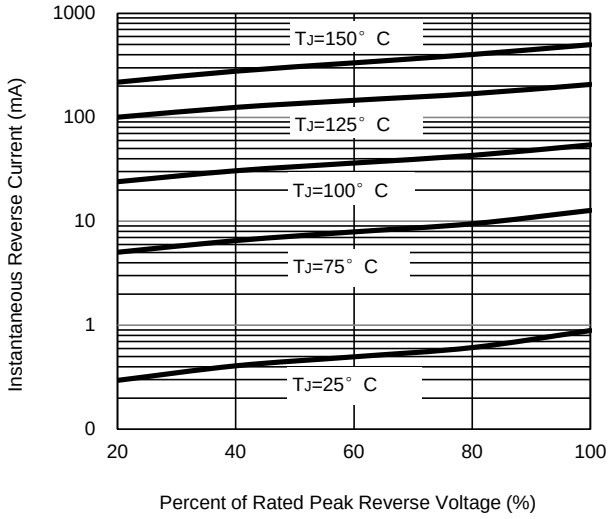
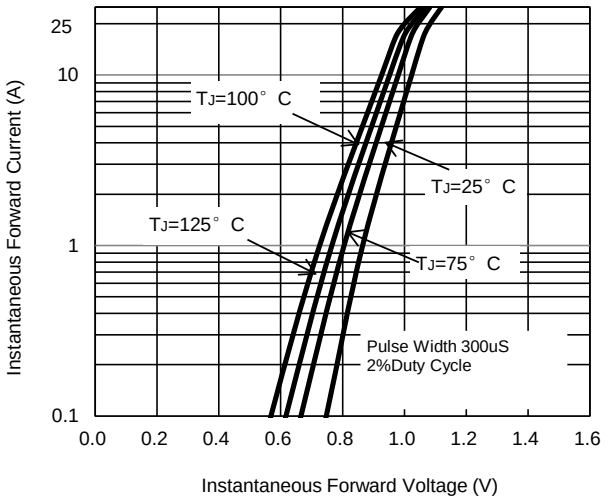


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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