



Glass Passivated 3 Phase Bridge Rectifiers

Reverse Voltage - 800 to 1600Volts  
Forward Current - 25 Amperes

Features

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

Mechanical Data

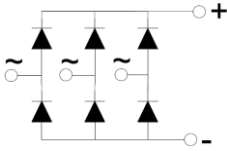
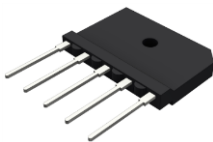
- Case: Epoxy case with heat sink
- Polarity: Symbol marked on body
- Mounting position:
- Bolt pass through the mounting hole of body then fixto heat sink
- Maximum Mounting torque (M4)<sup>1</sup>: 0.8 N.m

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

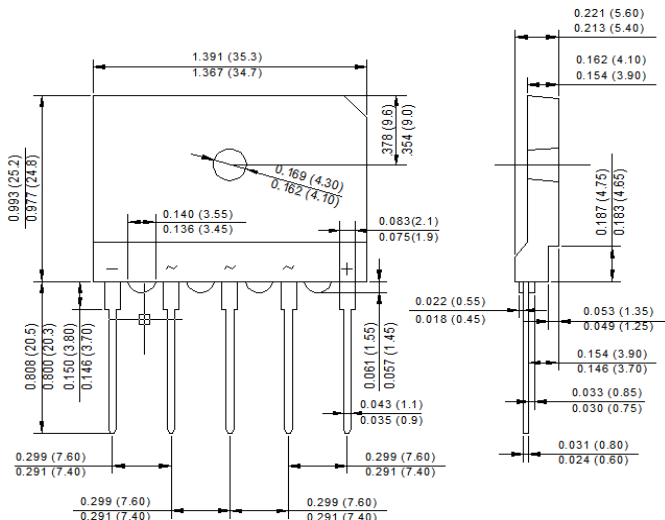
Applications

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

SGBJ



RoHS  
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

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	SGBJ25 -08	SGBJ25 -10	SGBJ25 -12	SGBJ25 -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 °C	I(AV)	25				A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	350				A
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	I <sup>2</sup> t	508				A <sup>2</sup> S
Peak Forward Voltage per Diode at 12.5A DC	VF	1.1				V
Maximum DC Reverse Current at Rated @Tj=25°C	IR	5				µA
DC Blocking Voltage per Diode @Tj=125°C		3				mA
RMS Isolation Voltage from Case to Lead	VISO	2500				V
Typical Thermal Resistance to Case	RθJC	0.8				°C/W
Operating Junction Temperature Range	TJ	-55 to +150				°C
Storage Temperature Range	TSTG	-55 to +150				°C

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



Fig. 1 - Forward Current Derating Curve

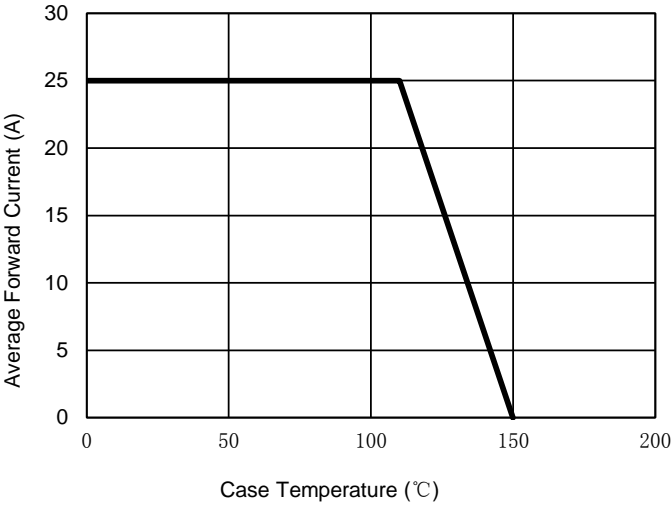


Fig. 2 - Maximum Non-Repetitive Surge Current

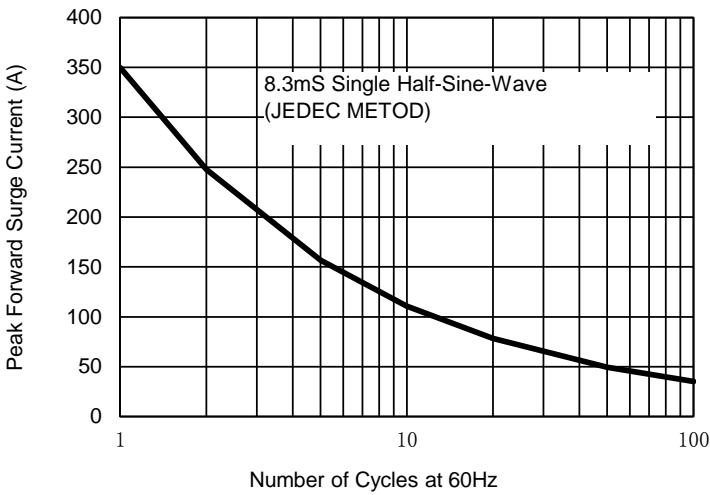


Fig. 3 - Typical Reverse Characteristics

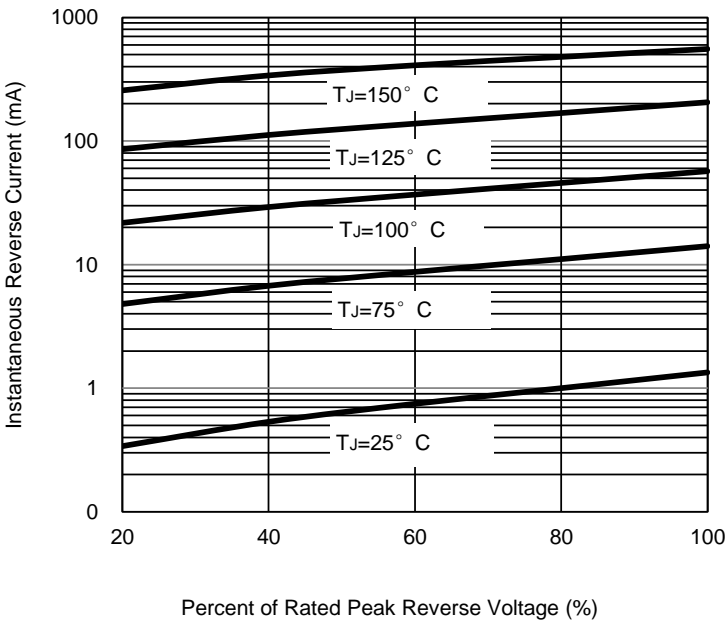
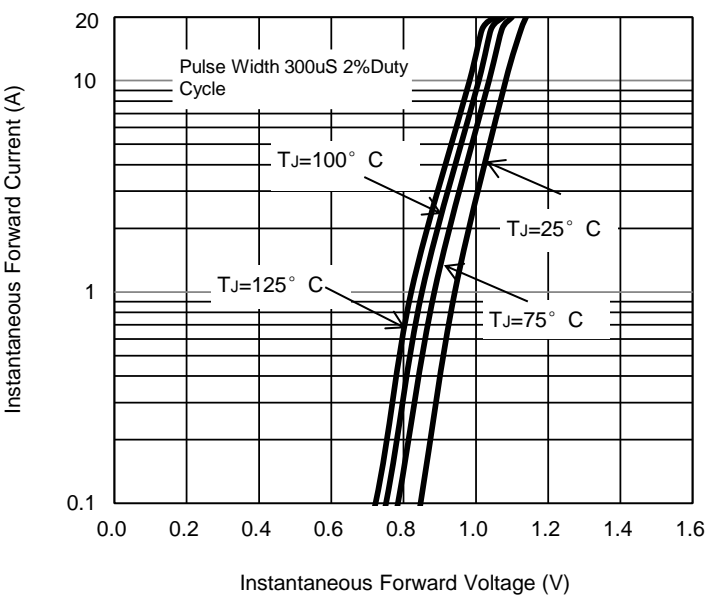


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



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