



## 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

### Mechanical Data

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

### Applications 应用

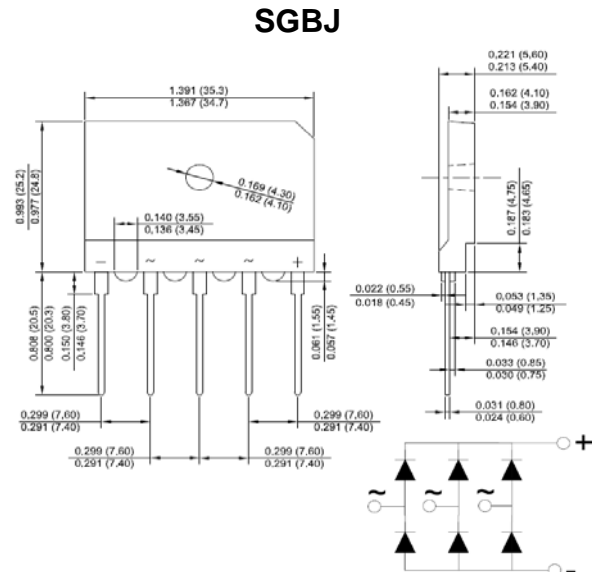
- For use in high power supply inverters, servo motor and welding machine applications

### 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%.



Package Outline Dimensions in Inches (Millimeters)

Characteristics	Symbol	SGBJ25 -08	SGBJ25 -10	SGBJ25 -12	SGBJ25 -16	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	800	1000	1200	1600	V
Maximum RMS Voltage	V <sub>RMS</sub>	560	700	840	1120	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	800	1000	1200	1600	V
Peak Non-Repetitive Reverse Voltage	V <sub>RSM</sub>	900	1100	1300	1700	V
Maximum Average Forward Rectified Current @T <sub>c</sub> =110 °C	I <sub>(AV)</sub>	25				A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	300				A
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	I <sup>2</sup> t	373.5				A <sup>2</sup> S
Peak Forward Voltage per Diode at 12.5A DC	V <sub>F</sub>	1.1				V
Maximum DC Reverse Current at Rated @T <sub>J</sub> =25°C	I <sub>R</sub>	5				µA
DC Blocking Voltage per Diode @T <sub>J</sub> =125°C	I <sub>R</sub>	3				mA
RMS Isolation Voltage from Case to Lead	V <sub>ISO</sub>	2500				V
Typical Thermal Resistance to Case	R <sub>θJC</sub>	0.8				°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150				°C
Storage Temperature Range	T <sub>STG</sub>	-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

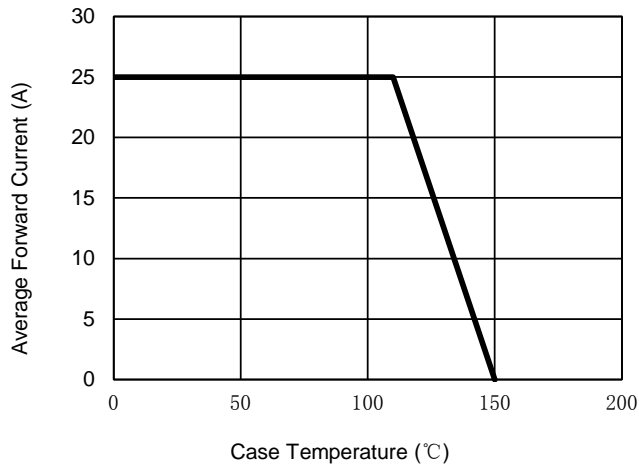


Fig. 2 - Maximum Non-Repetitive Surge Current

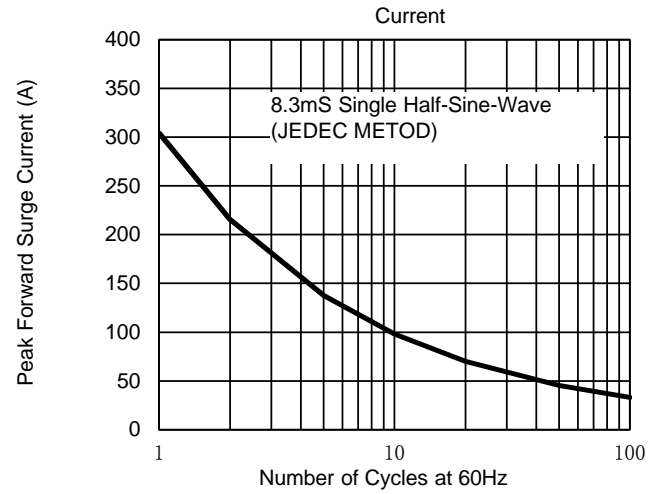


Fig. 3 - Typical Reverse Characteristics

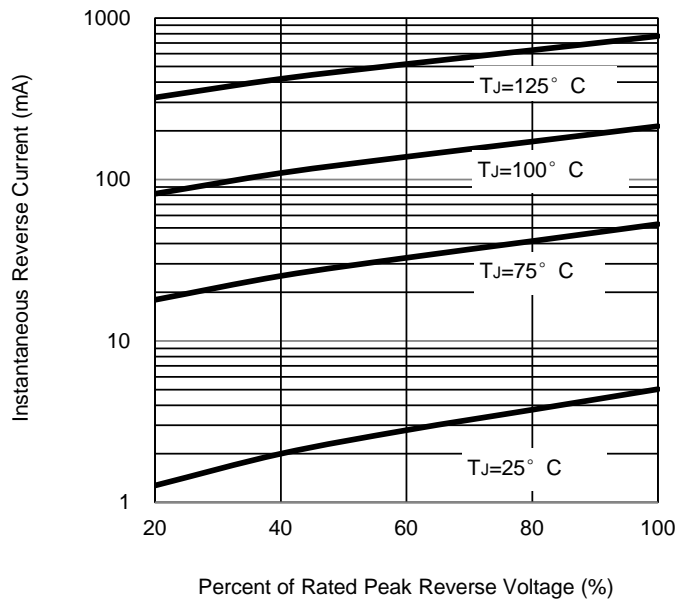


Fig. 4 - Typical Forward Characteristics

