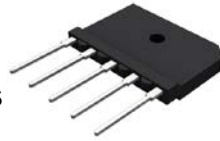


Glass Passivated 3 Phase Bridge Rectifiers



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

Features

- Low forward voltage drop
- High current capability
- High reliability

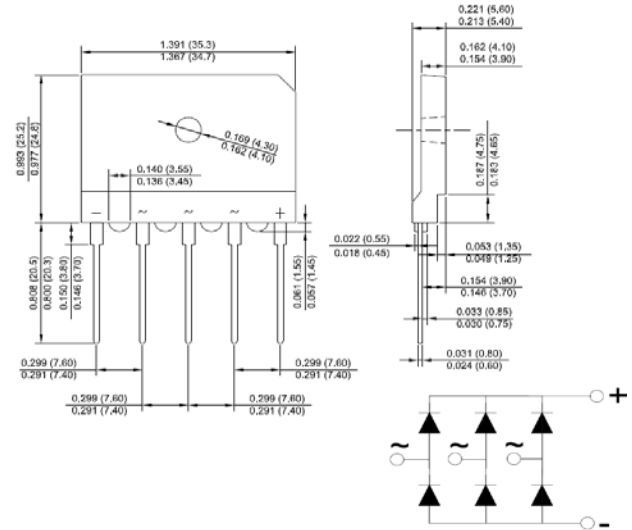
Mechanical Data

- 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)¹: 0.8 N.m

Applications 应用

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

SGBJ



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	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°C	I _(AV)	50				A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	500				A
I ² t Rating for Fusing (t<8.3mS)	I ² t	1037.5				A ² S
Peak Forward Voltage per Diode at 25A DC	V _F	1.1				V
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	5				μA
DC Blocking Voltage per Diode @T _J =150°C		3				mA
Typical Thermal Resistance to Case	R _{θJC}	0.8				°C/W
RMS Isolation Voltage from Case to Lead	V _{ISO}	2500				V
Operating Junction Temperature Range	T _J	-55 to +150				°C
Storage Temperature Range	T _{STG}	-55 to +125				°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

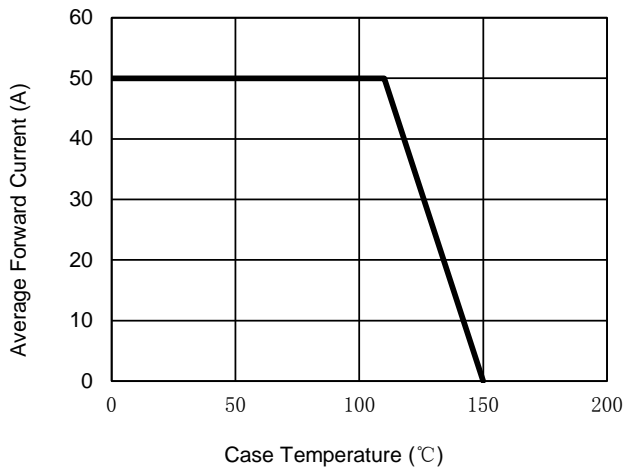


Fig. 2 - Maximum Non-Repetitive Surge Current

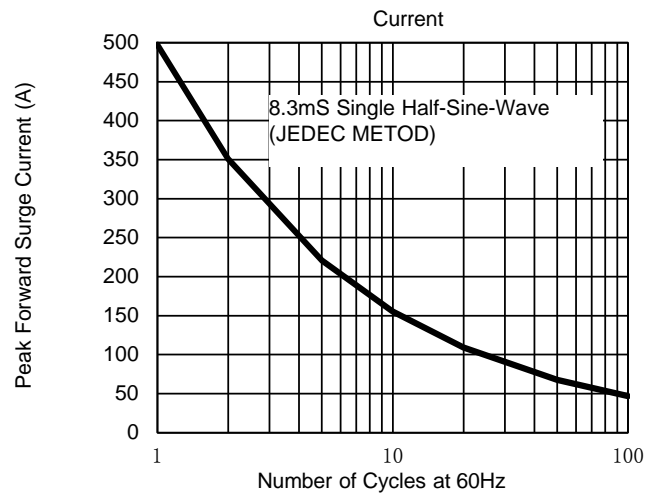


Fig. 3 - Typical Reverse Characteristics

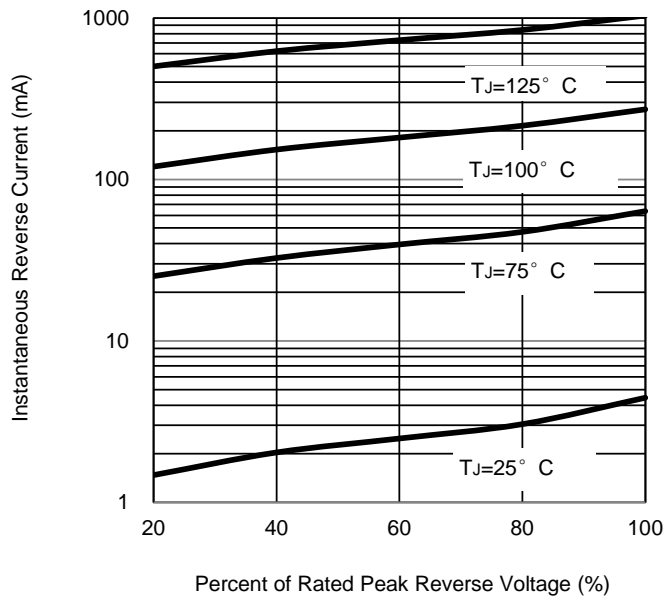


Fig. 4 - Typical Forward Characteristics

