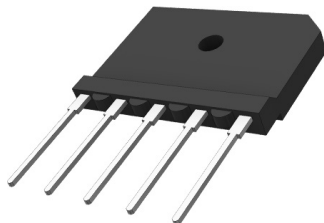


# Glass Passivated 3 Phase Bridge Rectifier



## Features

- Glass passivated chip, high reliability
- Low forward voltage drop
- Insulation voltage 2500V
- Small size and light weight
- Small thermal resistance, high thermal conductivity, low temperature rise

## Applications

- Power supply of DC equipment
- Input rectifier for PWM converter
- DC motor

## 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%

Voltage Ratings						Unit
Characteristics	Symbol	SGBJ5008	SGBJ5010	SGBJ5012	SGBJ5016	
Peak Repetitive Voltage	V <sub>RRM</sub>	800	1000	1200	1600	V
Peak Non-Repetitive Reverse Voltage	V <sub>RSM</sub>	900	1100	1300	1700	
Forward Conduction						
Characteristics	Symbol	SGBJ50 Series				Unit
Maximum Average Forward Rectified Current @T <sub>c</sub> = 110°C	I <sub>F(AV)</sub>	50				A
Peak Forward Surge Current t=8.3ms at 60Hz	I <sub>FSM</sub>	450				
I <sup>2</sup> t Rating for fusing	I <sup>2</sup> t	840				A <sup>2</sup> S
Maximum Forward Voltage drop per element at 17.5A Peak	V <sub>F</sub>	1.1				V
Reverse peak current V <sub>R</sub> =V <sub>RRM</sub> @T <sub>J</sub> =25°C V <sub>R</sub> =V <sub>RRM</sub> @T <sub>J</sub> =150°C	I <sub>R</sub>	5 3				μA mA
RMS Isolation Voltage from Case to Lead	V <sub>ISO</sub>	2500				V
Typical Thermal Resistance (Note1)	R <sub>θJC</sub>	0.8				°C/W
Mounting torque M3	M <sub>d</sub>	0.8				N.m
Weight	W <sub>t</sub>	10				g
Thermal Characteristics						
Operating Temperature Range	T <sub>J</sub>	-55 to +150				°C
Storage Temperature Range	T <sub>STG</sub>					

Notes: 1. Thermal resistance junction to case.

2. The typical data above is for reference only

# Glass Passivated 3 Phase Bridge Rectifier



## Rating and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

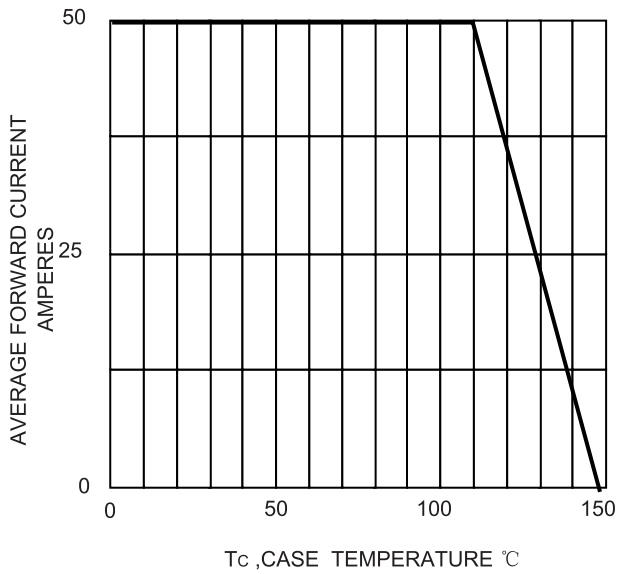


FIG.2-TYPICAL FORWARD CHARACTERISTICS

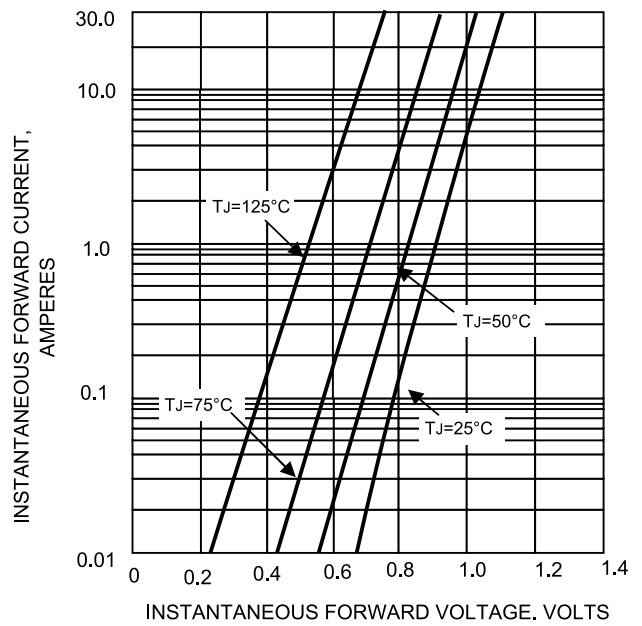


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

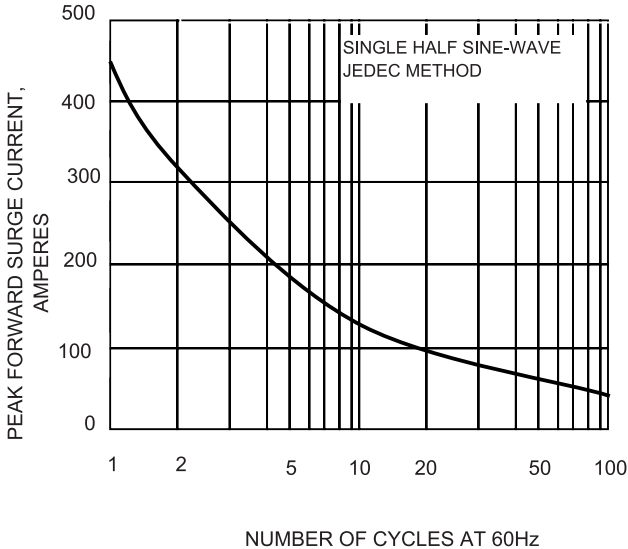
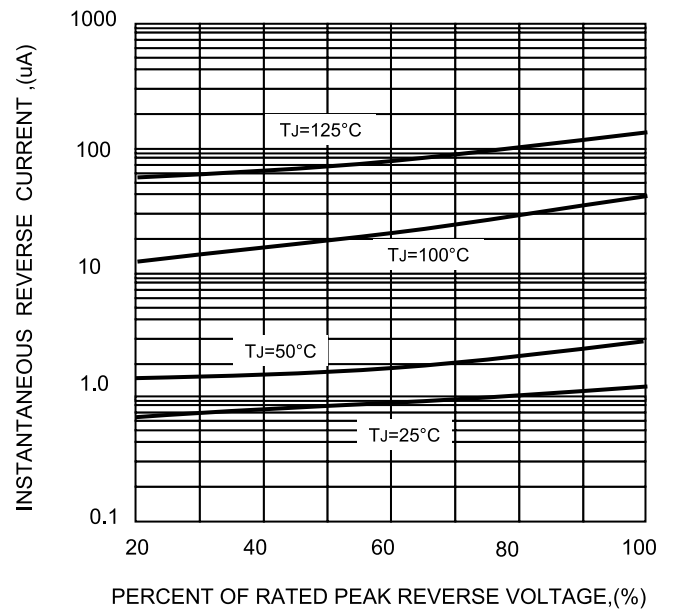


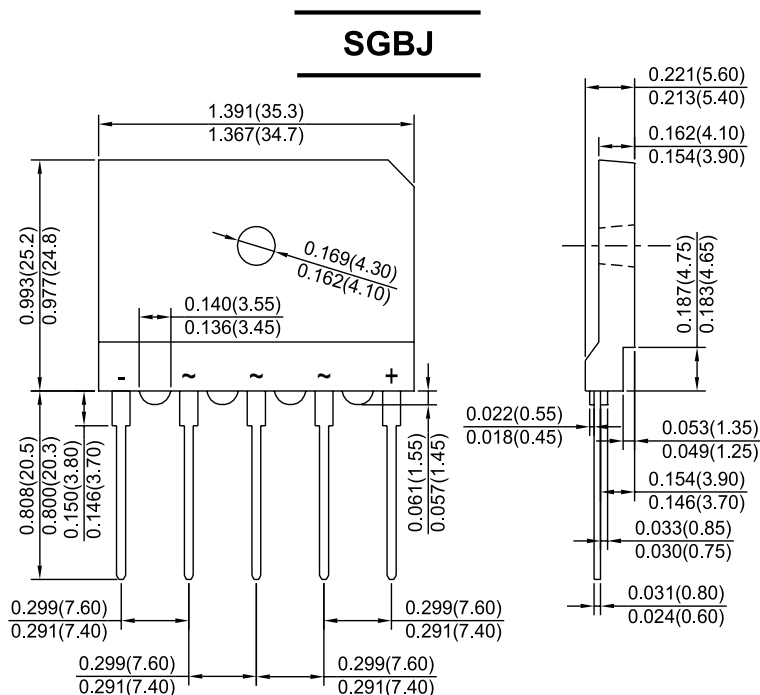
FIG.4-TYPICAL REVERSE CHARACTERISTICS



# Glass Passivated 3 Phase Bridge Rectifier



## Dimension:



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Three Phase Bridge Flat Type 50A 800V SGBJ Package	SGBJ5008
Three Phase Bridge Flat Type 50A 1000V SGBJ Package	SGBJ5010
Three Phase Bridge Flat Type 50A 1200V SGBJ Package	SGBJ5012
Three Phase Bridge Flat Type 50A 1600V SGBJ Package	SGBJ5016

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