

## Features

- Glass passivated chip, high reliability
- Low forward voltage drop
- Insulation voltage 2,500V
- Small size and light weight
- Small thermal resistance, high thermal conductivity and 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%

Characteristic	Symbol	HGBJ5008	HGBJ5010	HGBJ5012	HGBJ5016	Unit
<b>Voltage Ratings</b>						
Peak Repetitive Voltage	$V_{RRM}$	800	1,000	1,200	1,600	V
Peak Non-Repetitive Reverse Voltage	$V_{RSM}$	900	1,100	1,300	1,700	
<b>Forward Conduction</b>						
Maximum Average Forward Rectified Current @ $T_c = 110^\circ\text{C}$	$I_{F(AV)}$	50				A
Peak Forward Surge Current $t=8.3\text{ms}$ at 60Hz	$I_{FSM}$	450				
$I^2t$ Rating for Fusing	$I^2t$	840				$\text{A}^2\text{s}$
Maximum Forward Voltage drop per element at 17.5A Peak	$V_F$	1.1				V
Reverse peak current $V_R = V_{RRM}$ @ $T_J = 25^\circ\text{C}$ $V_R = V_{RRM}$ @ $T_J = 150^\circ\text{C}$	$I_R$	5 3				$\mu\text{A}$ mA
RMS Isolation Voltage from Case to Lead	$V_{ISO}$	2,500				V
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	0.8				$^\circ\text{C}/\text{W}$
Mounting torque M3	$M_d$	0.8				N.m
Weight	$W_t$	10				g
<b>Thermal Characteristics</b>						
Operating Temperature Range	$T_J$	-55 to +150				$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$					

- Notes:** 1. Thermal resistance junction to case.  
2. The typical data above is for reference only

## Rating and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

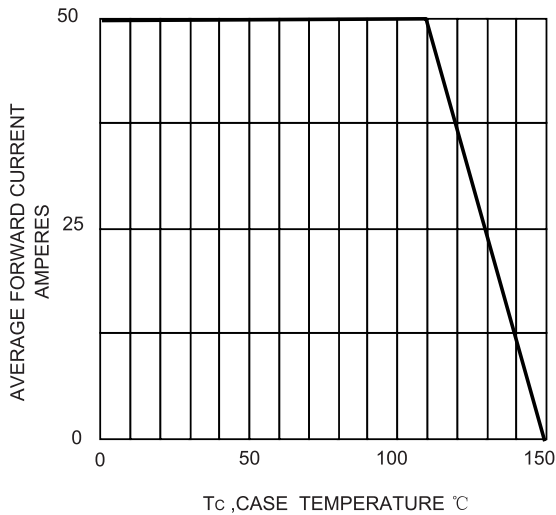


FIG.2-TYPICAL FORWARD CHARACTERISTICS

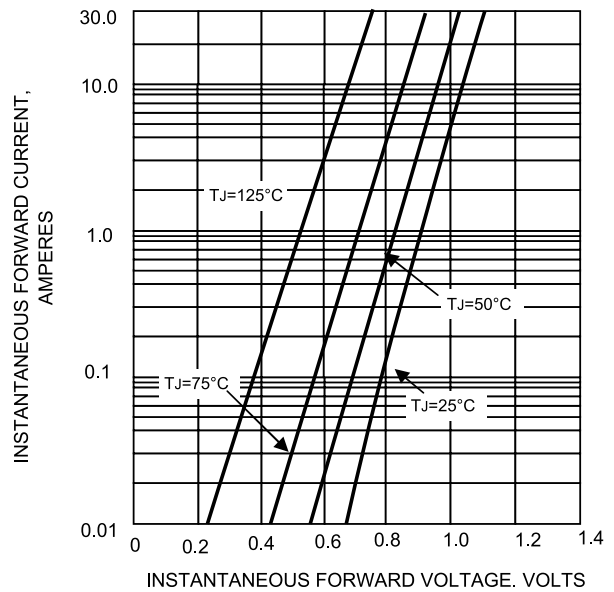


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

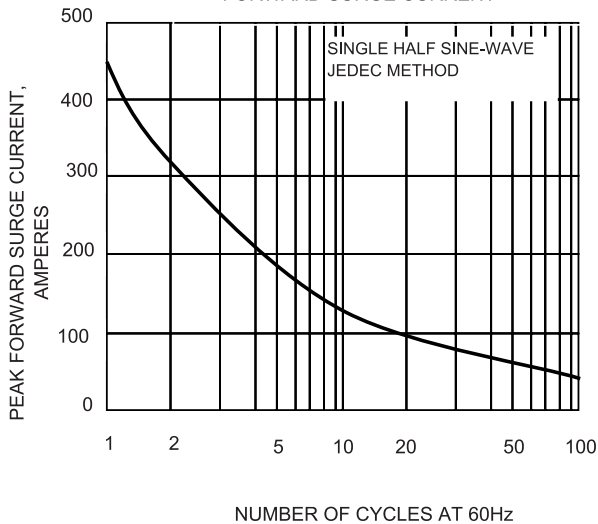
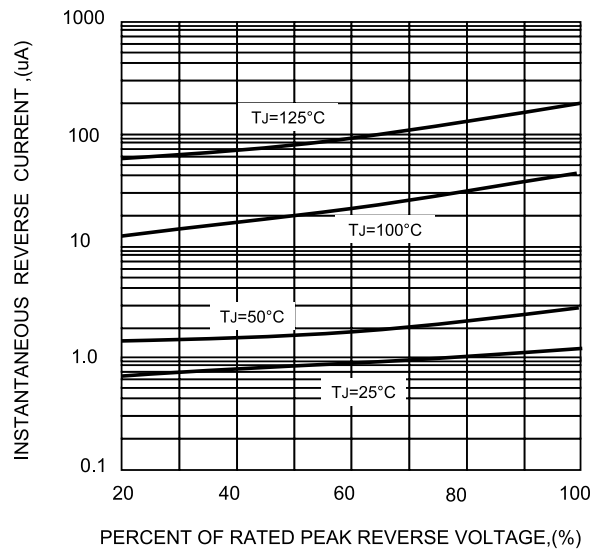


FIG.4-TYPICAL REVERSE CHARACTERISTICS

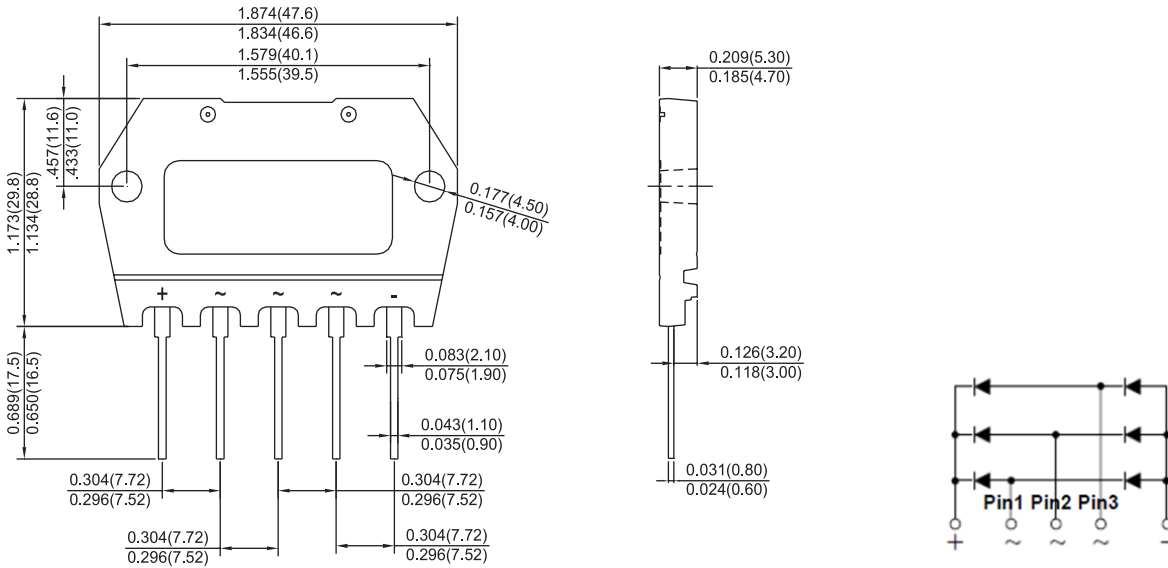


# Glass Passivated 3 Phase Bridge Rectifier



## Dimension:

### HGBJ



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Glass Passivated 3 Phase Bridge Rectifier	HGBJ5008
	HGBJ5010
	HGBJ5012
	HGBJ5016

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