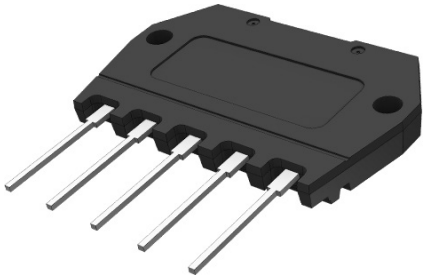
Glass Passivated 3 Phase Bridge Rectifier



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
Voltage Ratings						
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	
Forward Conduction						
Maximum Average Forward Rectified Current @Tc = 110°C	$I_{F(AV)}$	50				A
Peak Forward Surge Current t=8.3ms at 60Hz	I_{FSM}	450				
I^2t Rating for Fusing	I^2t	840				A^2s
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°C $V_R = V_{RRM}$ @ T_J = 150°C	I_R	5 3				µA mA
RMS Isolation Voltage from Case to Lead	V_{ISO}	2,500				V
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	0.8				°C/W
Mounting torque M3	M_d	0.8				N.m
Weight	W_t	10				g
Thermal Characteristics						
Operating Temperature Range	T_J	-55 to +150				°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

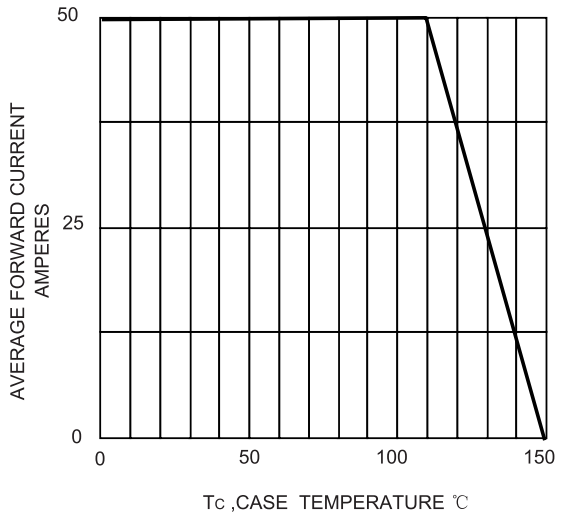


FIG.2-TYPICAL FORWARD CHARACTERISTICS

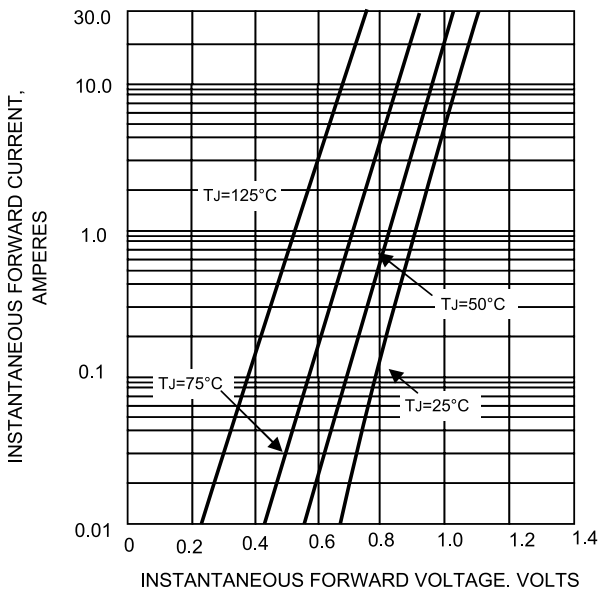


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

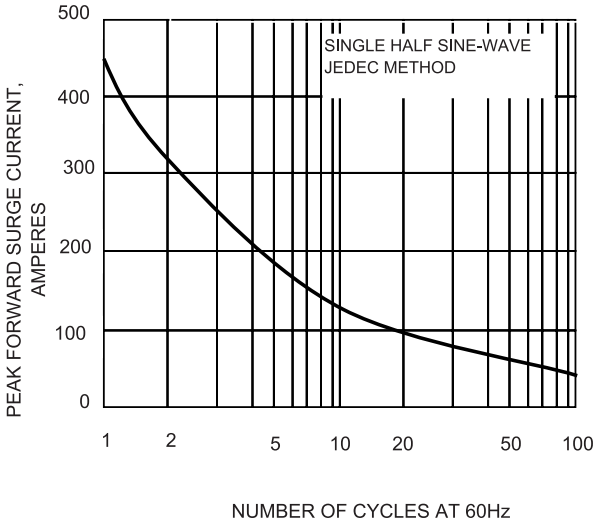
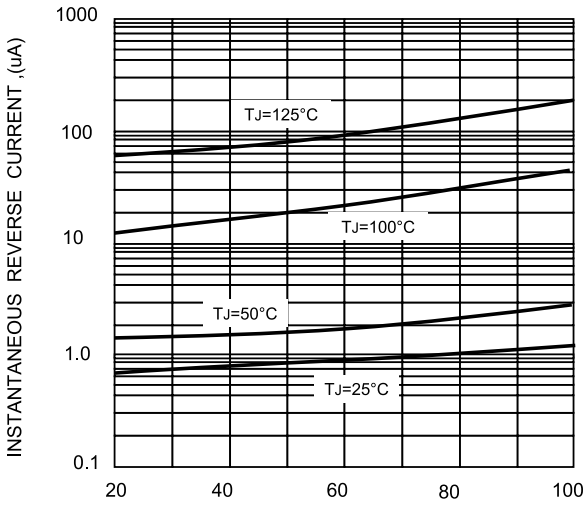


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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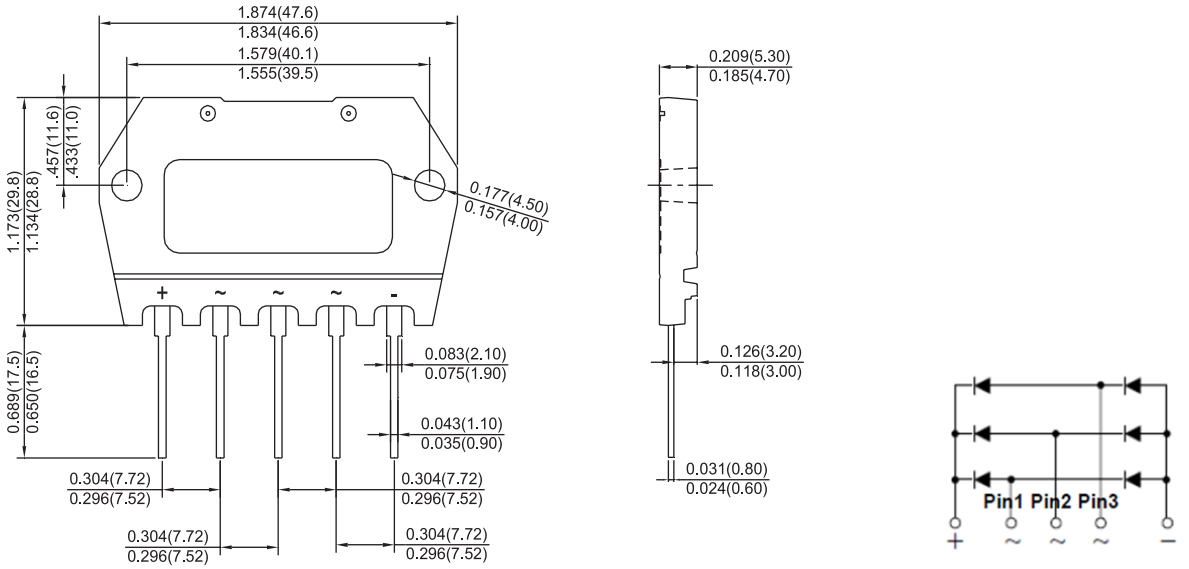
Dimension:

HGBJ



Dimensions : Inches (Millimetres)

Part Number Table

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