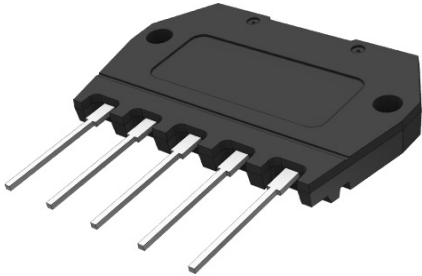


Glass Passivated 3 Phase Bridge Rectifier

multicomp PRO



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 @T _c = 110°C | I _{F(AV)} | 50 | | | | A |
| Peak Forward Surge Current t=8.3ms at 60Hz | I _{FSM} | 450 | | | | |
| I ² t Rating for Fusing | I ² t | 840 | | | | A ² 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°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 _{θJC} | 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

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

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Glass Passivated 3 Phase Bridge Rectifier

Rating and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

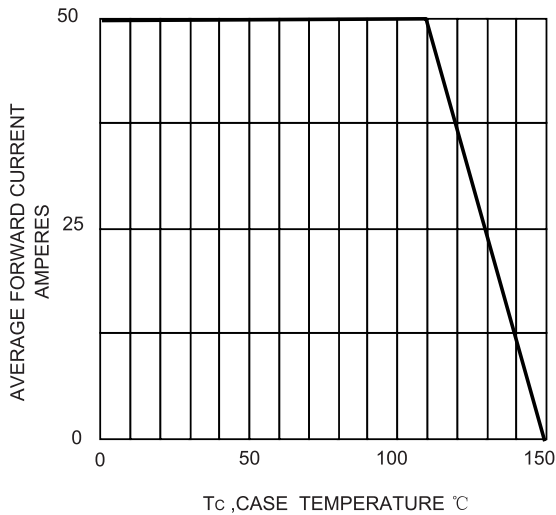


FIG.2-TYPICAL FORWARD CHARACTERISTICS

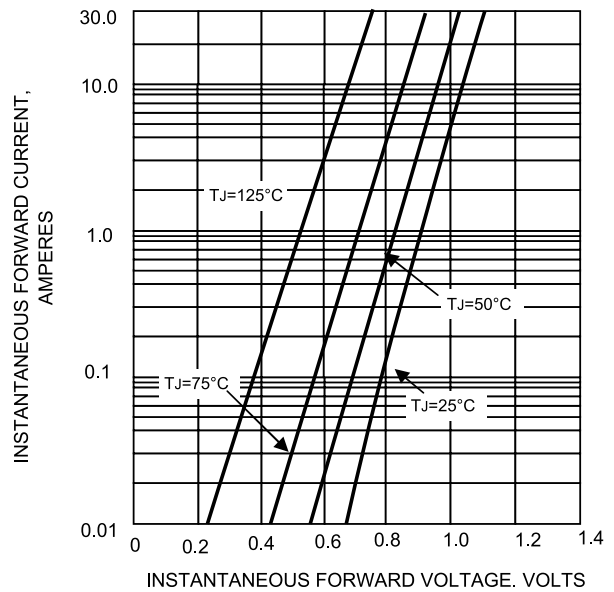


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

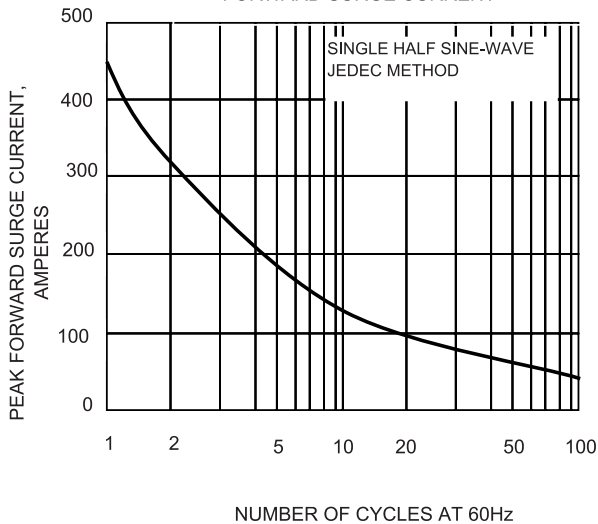
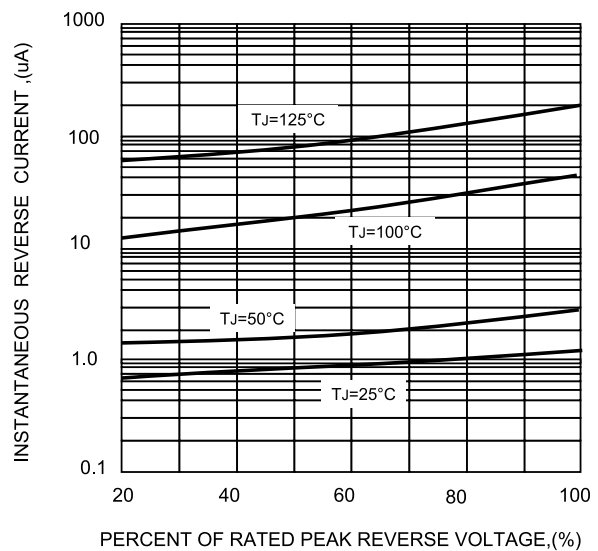


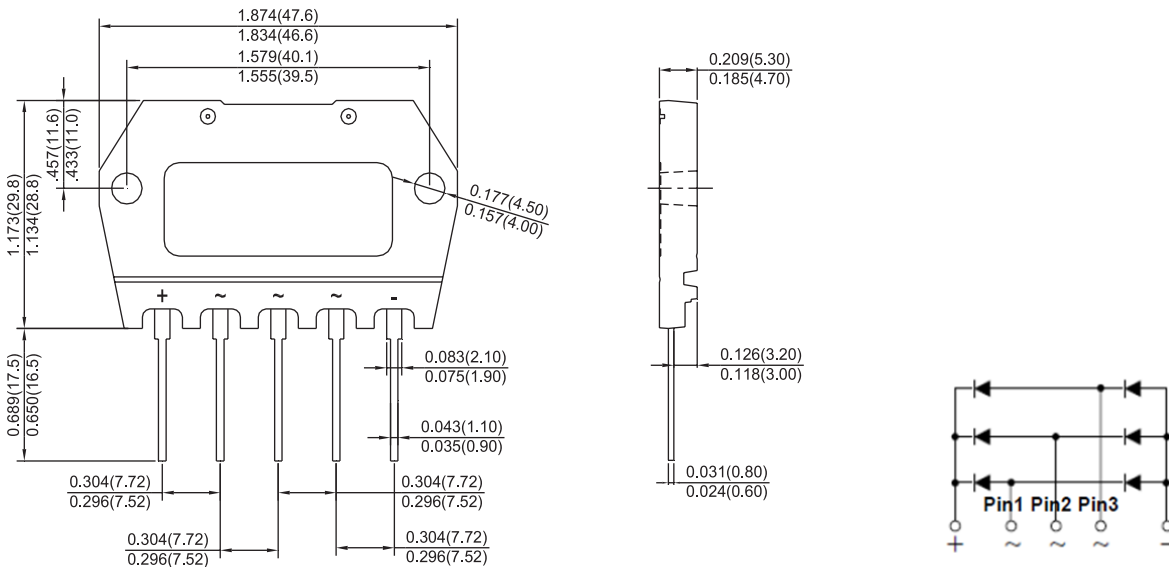
FIG.4-TYPICAL REVERSE CHARACTERISTICS



Glass Passivated 3 Phase Bridge Rectifier

Dimension:

HGBJ



Dimensions : Inches (Millimetres)

Part Number Table

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

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