# BR6005G THRU BR610G

## Glass Passivated Bridge Rectifiers

**Reverse Voltage - 50 to 1000 Volts**
**Forward Current - 6.0 Amperes**

### Features

- Glass passivated chip
- Low forward voltage drop
- Small size; simple installation
- Lead tin plated copper
- Meet UL flammability classification 94V-0

### Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

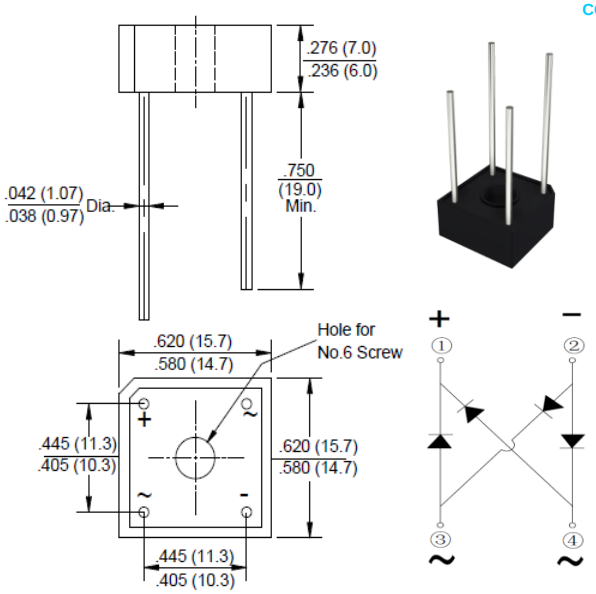
Note: Products with logo HY® or hy® are made by HY Electronic (Cayman) Limited.

### Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

**BR6**

Pb RoHS COMPLIANT




Package Outline Dimensions in Inches (Millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristics | Symbol | BR6005G | BR601G | BR602G | BR604G | BR606G | BR608G | BR610G | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum Average Forward Rectified Current @$T_A$=50 ℃ | $I_{(AV)}$ | 6.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$ | 150 | | | | | | | A |
| $I^2t$ Rating for Fusing (t<8.3mS) | $I^2t$ | 93.4 | | | | | | | $A^2s$ |
| Peak Forward Voltage per Diode at 3.0A DC | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at Rated @$T_J$=25℃ | $I_R$ | 10.0 | | | | | | | μA |
| DC Blocking Voltage per Diode @$T_J$=100℃ | | 1.0 | | | | | | | mA |
| Operating Junction Temperature Range | $T_J$ | -55 to +150 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

Fig. 1 - Forward Current Derating Curve

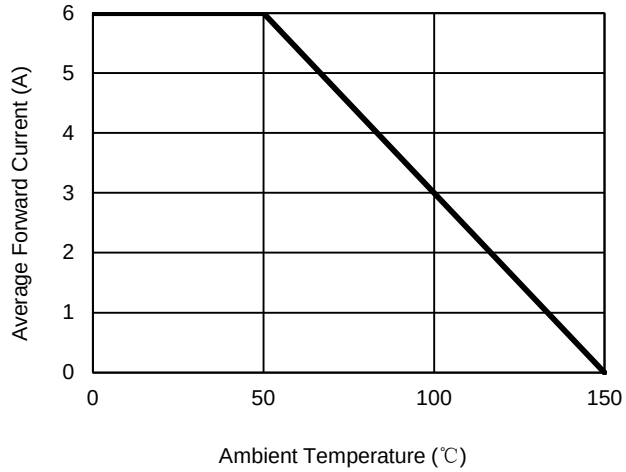



Fig. 2 - Maximum Non-Repetitive Surge Current

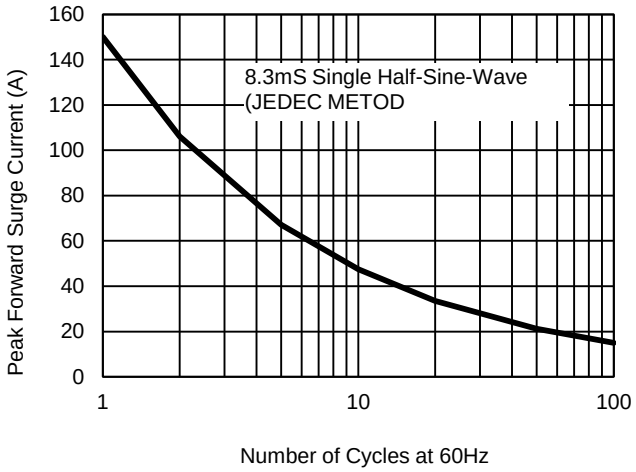



Fig. 3 - Typical Reverse Characteristics

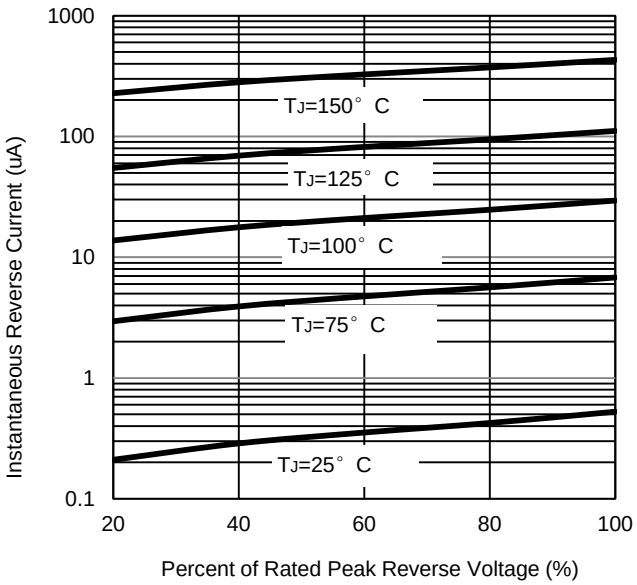
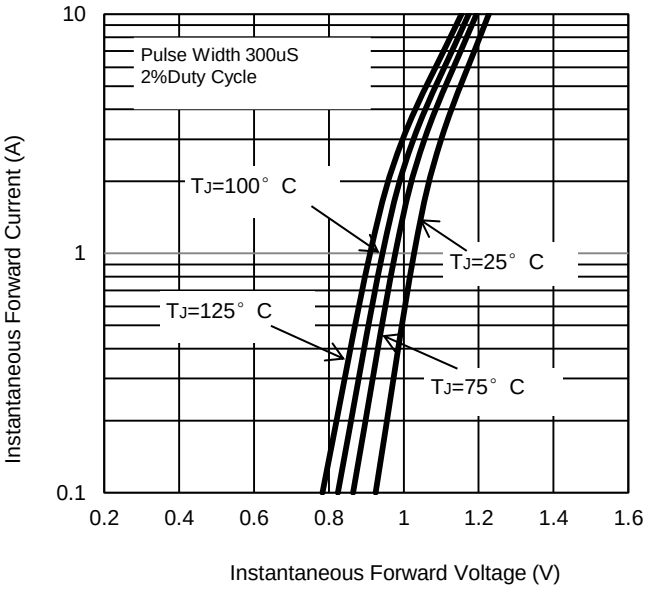



Fig. 4 - Typical Forward Characteristics




The curve above is for reference only.

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