

Silicon Bridge Rectifiers

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

Features

- Low forward voltage drop
- High surge forward current capability
- Small size, simple installation

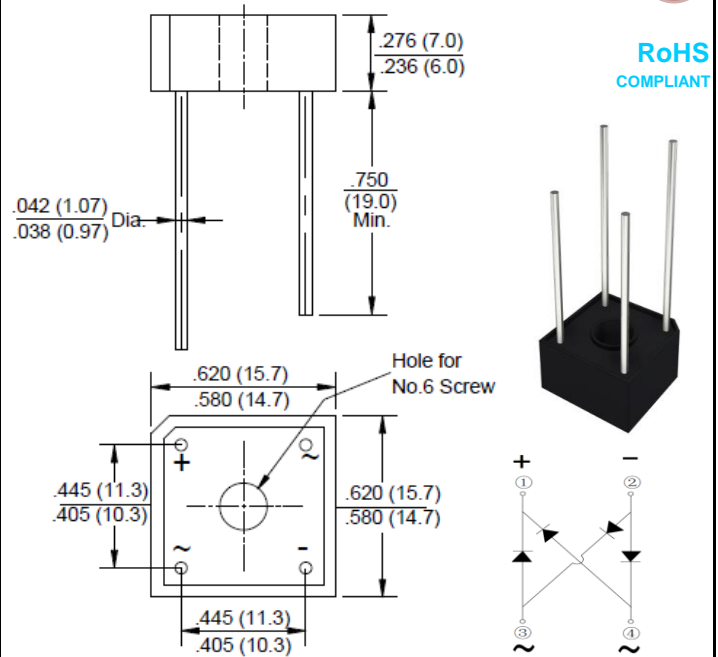
Mechanical Data

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

Applications

- General purpose use in AC/DC bridge full wave rectification, for power supply, industrial automation applications, etc.

BR6



Package Outline Dimensions in Inches (Millimeters)

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%.

| Characteristics | Symbol | BR6005 | BR601 | BR602 | BR604 | BR606 | BR608 | BR610 | 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 °C | I(AV) | 6.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | I _{FSM} | 175 | | | | | | | A |
| I ² t Rating for Fusing (t<8.3mS) | I ² t | 127.1 | | | | | | | A ² s |
| Peak Forward Voltage per Diode at 3A DC | V _F | 1.0 | | | | | | | V |
| Maximum DC Reverse Current at Rated @T _J =25°C | I _R | 10.0 | | | | | | | μA |
| DC Blocking Voltage per Diode @T _J =100°C | | 1.0 | | | | | | | mA |
| Operating Junction Temperature Range | T _J | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | °C |

Fig. 1 - Forward Current Derating Curve

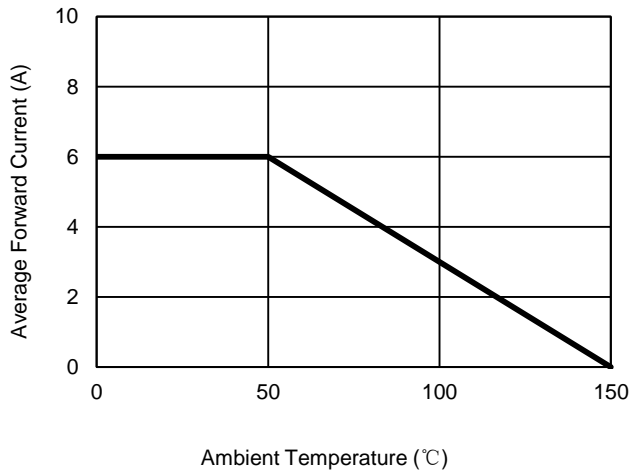


Fig. 2 - Maximum Non-Repetitive Surge Current

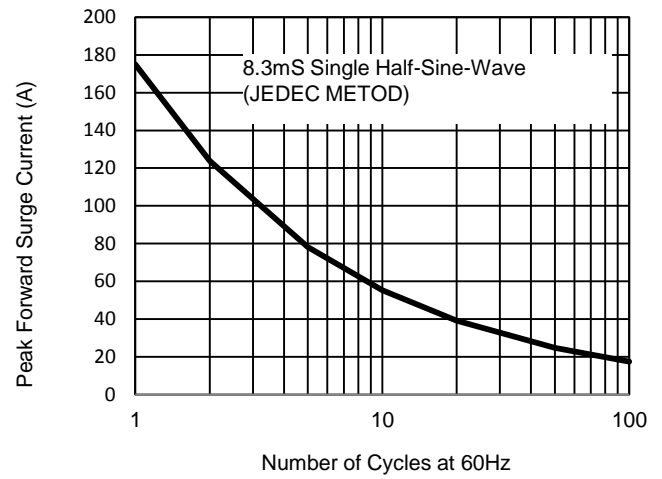


Fig. 3 - Typical Reverse Characteristics

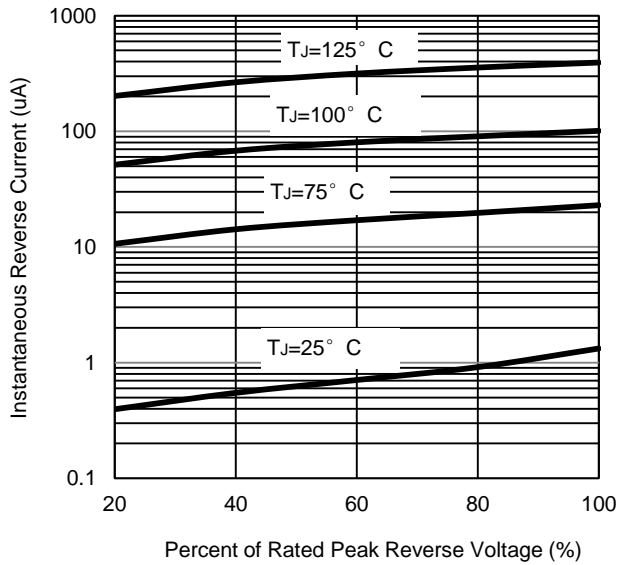
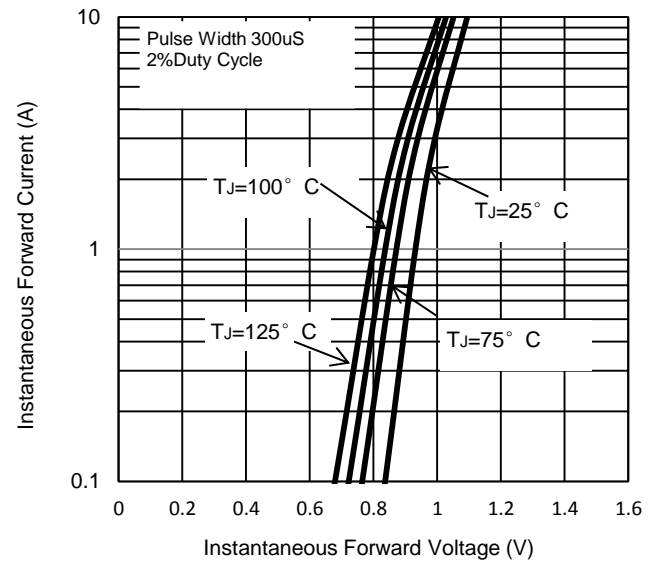


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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