# GBU2516

## Glass Passivated Bridge Rectifiers

**Reverse Voltage - 1600 Volts**
**Forward Current - 25 Amperes**

### Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

### Mechanical Data

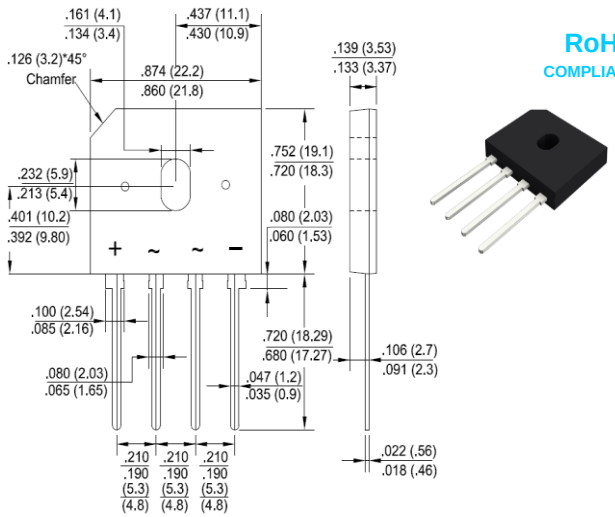
- Polarity: Symbol marked on body
- Mounting position: Any

### Applications

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

### GBU

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 | GBU2516 | Unit |
|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 1600 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 1120 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 1600 | V |
| Maximum Average Forward (with heatsink Note 2) | $I_{(AV)}$ | 25.0 | A |
| Rectified Current @ $T_C$=100℃ (without heatsink) | | 4.2 | |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$ | 350 | A |
| $I^2t$ Rating for Fusing (t<8.3mS) | $I^2t$ | 508 | $A^2s$ |
| Peak Forward Voltage per Diode at 12.5A DC | $V_F$ | 1.2 | V |
| Maximum DC Reverse Current at Rated @$T_J$=25℃ | $I_R$ | 5.0 | μA |
| DC Blocking Voltage per Diode @$T_J$=125℃ | | 500 | |
| Typical Junction Capacitance per Diode (Note1) | $C_J$ | 70 | pF |
| Typical Thermal Resistance to Ambient (Note2) | $R_{\theta JA}$ | 10 | ℃/W |
| Typical Thermal Resistance to case (Note2) | $R_{\theta JC}$ | 2 | |
| Typical Thermal Resistance to lead (Note2) | $R_{\theta JL}$ | 2.2 | |
| Operating Junction Temperature Range | $T_J$ | -55 to +150 | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | ℃ |

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
2.Device mounted on 100mm*100mm*1.6mm Cu plate heatsink.
3.The typical data above is for reference only

## Rating and Characteristic Curves
## GBU2516

Fig. 1 - Forward Current Derating Curve

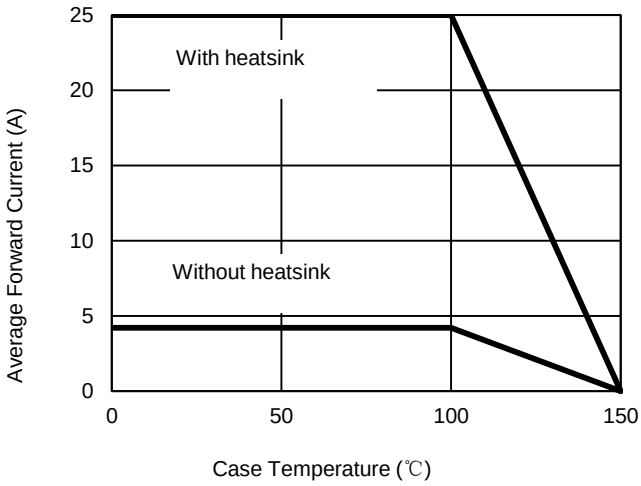



Fig. 2 - Maximum Non-Repetitive Surge Current

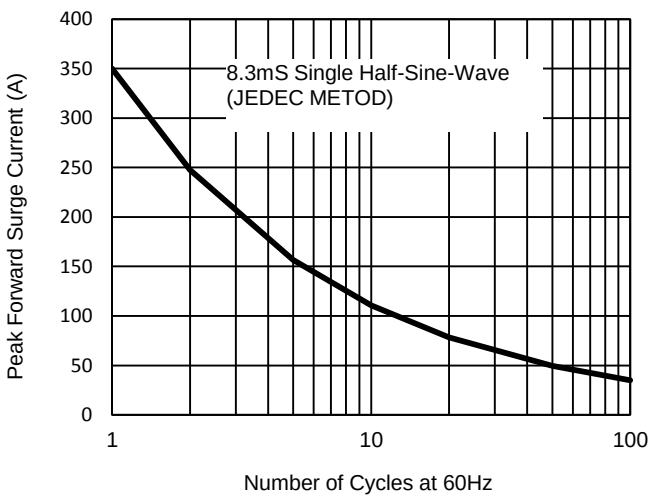



Fig. 3 - Typical Reverse Characteristics

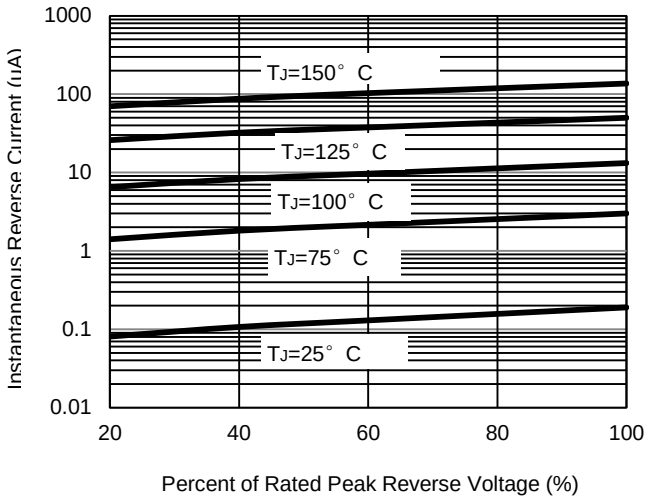
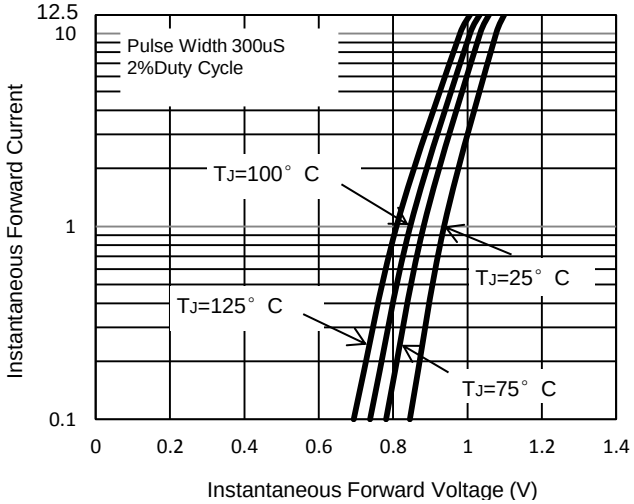



Fig. 4 - Typical Forward Characteristics




The curve above is for reference only.

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