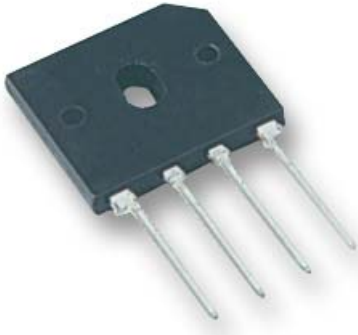


# GBU6 Series

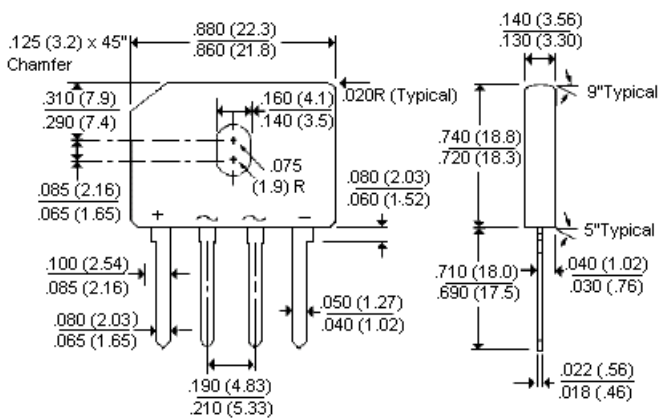
## Single Phase Bridge Rectifiers



### Features:

- Glass passivated devices offer greater reliability at higher operating temperatures and improved moisture resistance capability.
- Ideal for printed circuit board.
- Surge overload rating: 175 Amperes peak.
- High temperature soldering guaranteed:  
260°C/10 seconds/0.375" (9.5mm) lead length at 5lbs (2.3kg) tension.

### GBU



### Mechanical Data:

- Case : Reliable low cost construction utilizing moulded plastic technique.
- Terminals : Leads solderable per MIL-STD-202, Method 208
- Mounting position : Any
- Mounting torque : 5 in. lb. Maximum.
- Weight : 0.15 ounce, 4.0 grams.

| Body   |       |       |
|--------|-------|-------|
| Height | Width | Depth |
| 18.8   | 22.3  | 3.56  |

### Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

For Capacitive load derate current by 20%.

| Parameter  | GBU6B | GBU6J | GBU6K | Units             |
|--|-------|-------|-------|-------------------|
| Maximum recurrent peak reverse voltage                                     | 100   | 600   | 800   | V <sub>RRM</sub>  |
| Maximum RMS input voltage  | 70    | 420   | 560   | V <sub>RMS</sub>  |
| Maximum DC blocking voltage  | 100   | 600   | 800   | V <sub>DC</sub>   |
| Maximum average forward rectified output current at T <sub>C</sub> = 100°C | 6.0   |       |       | A <sub>(AV)</sub> |



# GBU6 Series

## Single Phase Bridge Rectifiers



| Parameter  | GBU6B   | GBU6J       | GBU6K | Units                  |
|--|---|-------------|-------|------------------------|
| I <sup>2</sup> t Rating for fusing ( t<8.3ms)  |   | 127         |       | A <sup>2</sup> Seconds |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC method)  |   | 175         |       | A <sub>PK</sub>        |
| Maximum instantaneous forward voltage drop per element at 6.0A   |   | 1.0         |       | V <sub>PK</sub>        |
| Maximum reverse leakage at rated DC blocking voltage per element   | T <sub>A</sub> = 25°C<br>T <sub>C</sub> = 100°C | 5.0<br>500  |       | μA                     |
| Typical thermal resistance per leg (Note 2) R <sub>θJA</sub><br>Typical thermal resistance per leg (Note 3) R <sub>θJL</sub> |   | 8.6<br>3.1  |       | °C/W                   |
| Operating and Storage temperature range, T <sub>J</sub> , T <sub>STG</sub>   |   | -55 to +150 |       | °C                     |

### Notes:

1. Recommended mounting position is to bolt down on to a heatsink with silicone thermal compound for maximum heat transfer with a number 6 screw.
2. Units Mounted in free air, no heatsink, PCB at 0.375" (9.5mm) lead length with 0.5" x 0.5" (12 x 12mm) copper pads.
3. Units Mounted on a 2.6" x 1.4" x 0.06" thick (6.5 x 3.5 x 0.15cm) Aluminium plate.

### Rating and Characteristics Curves

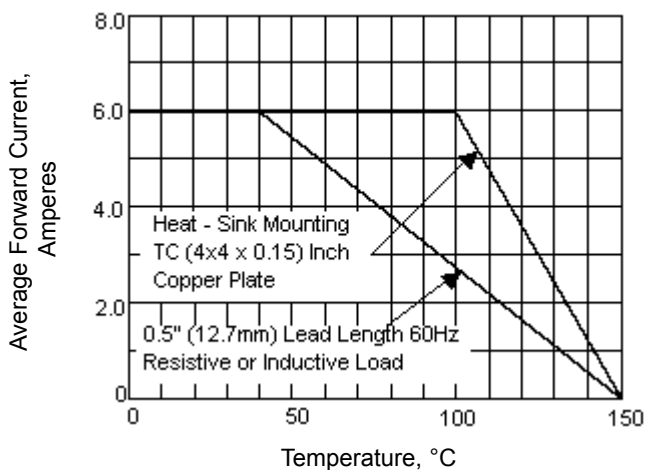


Figure - 1 Derating Curve for Output Rectified Current

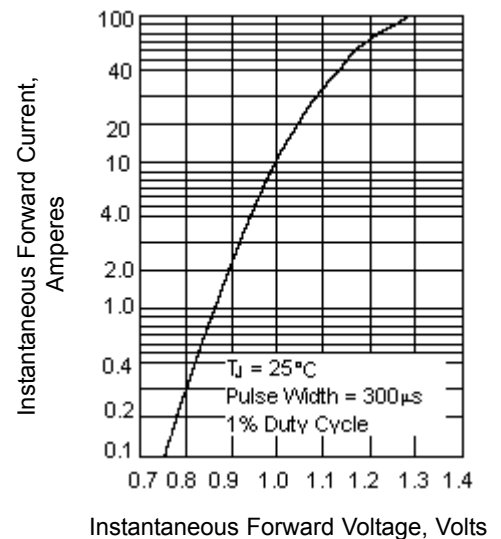


Figure - 2 Typical Instantaneous Forward Characteristics per Element

# GBU6 Series

## Single Phase Bridge Rectifiers

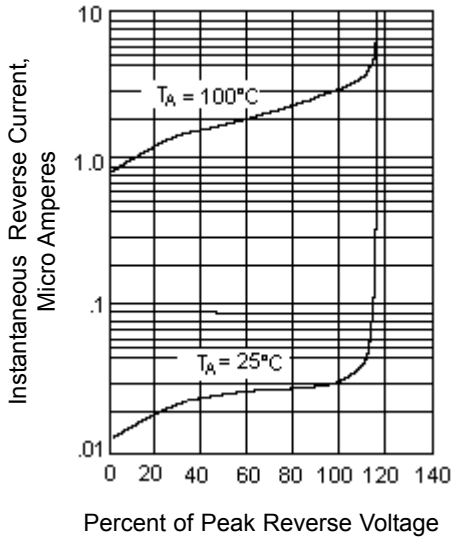


Figure - 3 Typical Reverse Characteristics

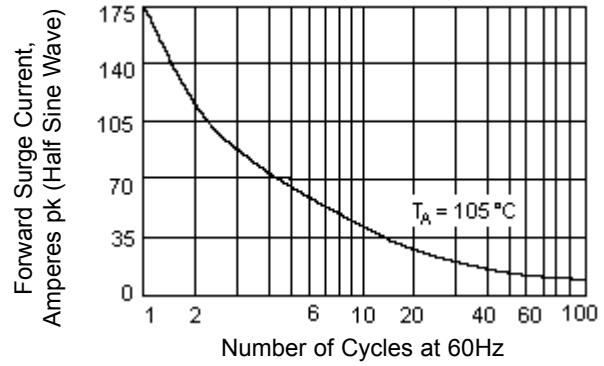


Figure - 4 Maximum Non-Repetitive Peak Forward Surge Current

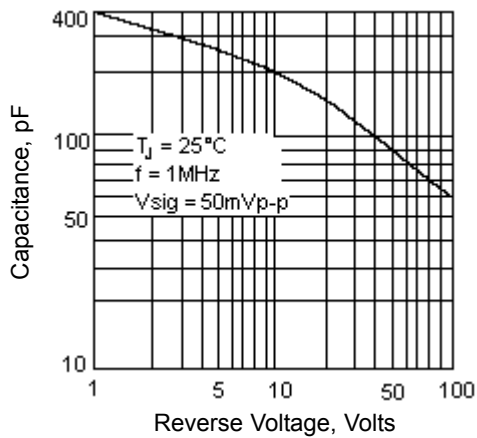


Figure - 5 Typical Junction Capacitance per Element

### Specifications

| $V_{RRM}$<br>(V) | Maximum<br>Input Voltage<br>(V ac) | $I_O$<br>at 40°C<br>(A) | $I_{FSM}$<br>(A) | Current<br>Rating<br>(A) | Part Number |
|------------------|------------------------------------|-------------------------|------------------|--------------------------|-------------|
| 100              | 70                                 | 6                       | 175              | 6                        | GBU6B       |
| 600              | 420                                |                         |                  |                          | GBU6J       |
| 800              | 560                                |                         |                  |                          | GBU6K       |



# GBU6 Series

## Single Phase Bridge Rectifiers



### Notes:

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