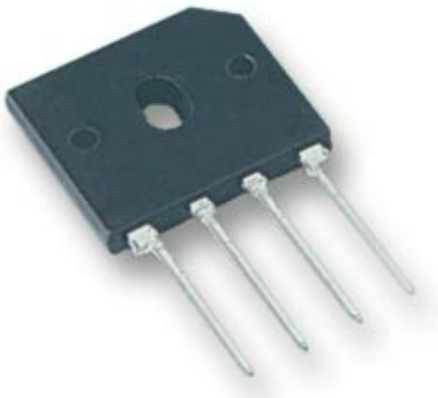


# GBU4 Series

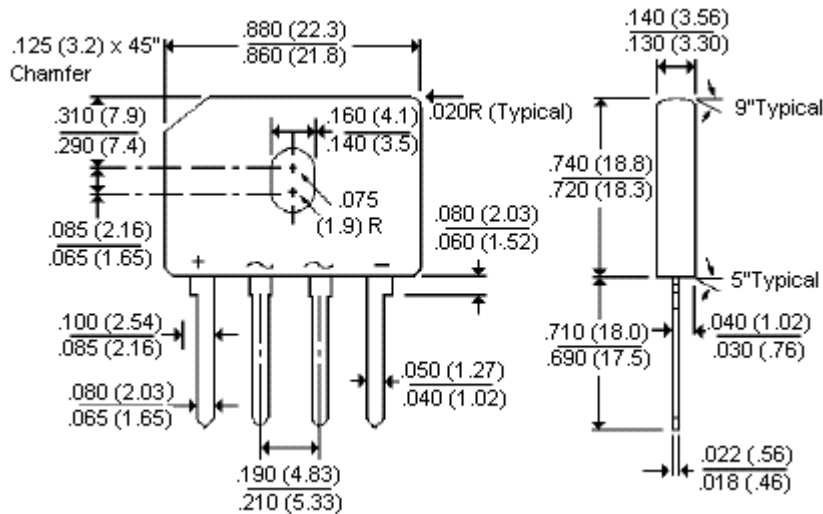
## Single Phase Bridge Rectifiers



### Features:

- Glass passivated device offer greater reliability at higher operating temperatures and improved moisture resistance capability.
- Ideal for printed circuit board.
- Reliable low cost construction utilizing moulded plastic technique.
- Surge overload rating : 150 amperes peak.
- High temperature soldering guaranteed : 260°C/10 seconds/0.375" (9.5mm) lead length at 5lbs (2.3kg) tension.

### GBU



Dimensions : Inches (Millimetres)

### 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 : 5in. lb. Maximum.

# GBU4 Series

## Single Phase Bridge Rectifiers



### 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                                                                                                    | GBU4B       | GBU4D | GBU4K | Units         |
|--------------------------------------------------------------------------------------------------------------|-------------|-------|-------|---------------|
| Maximum recurrent peak reverse voltage                                                                       | 100         | 200   | 800   | $V_{RRM}$     |
| Maximum RMS input voltage                                                                                    | 70          | 140   | 560   | $V_{RMS}$     |
| Maximum DC blocking voltage                                                                                  | 100         | 200   | 800   | V dc          |
| Maximum average forward Rectified output current at $T_C = 100^{\circ}C$<br>$T_A = 40^{\circ}C$              | 4.0<br>3.0  |       |       | $A_{(AV)}$    |
| $I^2t$ rating for fusing ( $t < 8.3ms$ )                                                                     | 93          |       |       | $A^2Sec$      |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)                        | 150         |       |       | $A_{PK}$      |
| Maximum instantaneous forward voltage drop per element at 4.0A                                               | 1.0         |       |       | $V_{PK}$      |
| Maximum reverse leakage at rated $T_A = 25^{\circ}C$<br>DC blocking voltage per element $T_C = 100^{\circ}C$ | 5<br>500    |       |       | $^{\circ}CA$  |
| Typical thermal resistance per leg (Note 2) R $\theta$ JA<br>(Note 3) R $\theta$ JL                          | 19.0<br>4   |       |       | $^{\circ}C/W$ |
| Operating and Storage temperature range $T_J, T_{STG}$                                                       | -55 to +150 |       |       | $^{\circ}C$   |

#### Notes:

1. Recommended mounting position is to bolt down on to a heatsink with silicone thermal compound for maximum heat transfer with 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 2.0 x 1.6" x 0.3" thick (5 x 4 x 0.8cm) Aluminium plate.

# GBU4 Series

## Single Phase Bridge Rectifiers



### Rating and Characteristic Curves

Figure 1 Derating Curve for Output Rectified Current

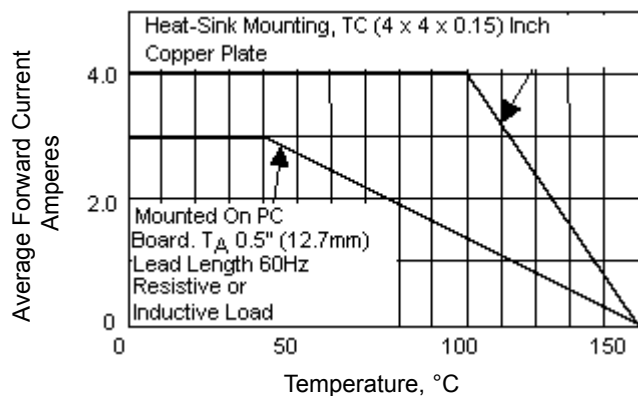


Figure 2 Typical Instantaneous Forward Characteristics per Element

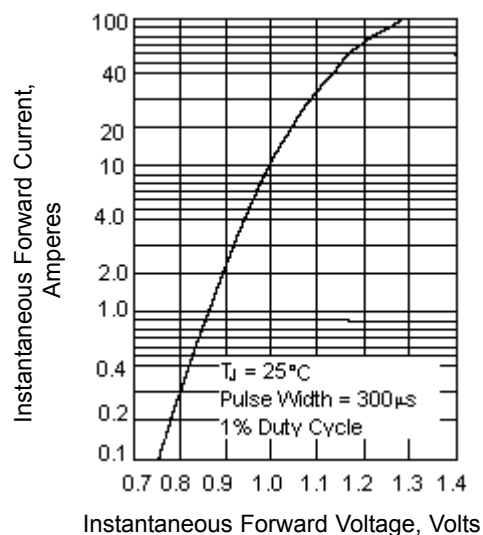


Figure 3 Typical Reverse Characteristics

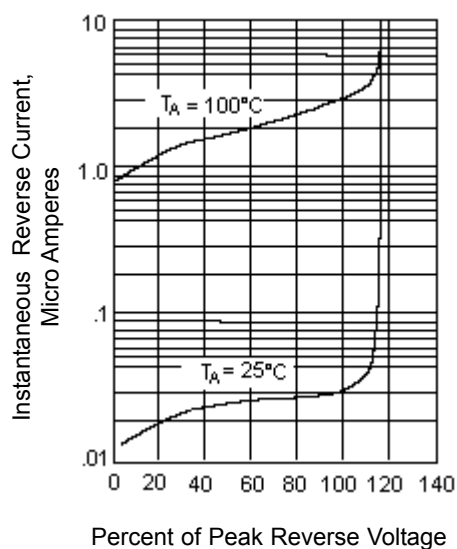
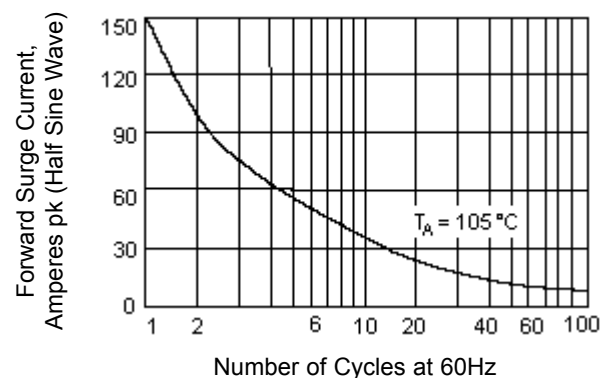


Figure 4 Maximum Non-Repetitive Peak Forward Surge Current

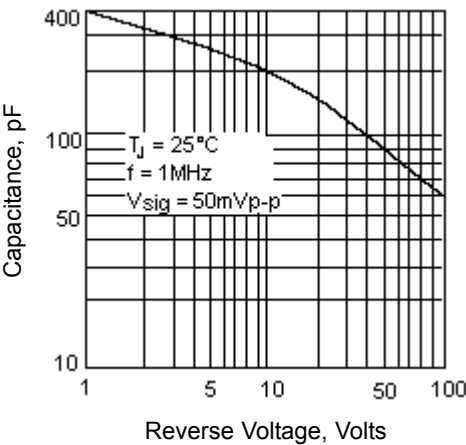


# GBU4 Series

## Single Phase Bridge Rectifiers



Figure 5 Typical Junction Capacitance per Element



### Specifications

| $V_{RRM}$<br>(V) | Maximum<br>Input Voltage<br>(V ac) | $I_O$<br>at $40^\circ\text{C}$<br>(A) | $I_{FSM}$<br>(A) | Part Number |
|------------------|------------------------------------|---------------------------------------|------------------|-------------|
| 100              | 70                                 | 3                                     | 150              | GBU4B       |
| 200              | 140                                |                                       |                  | GBU4D       |
| 800              | 560                                |                                       |                  | GBU4K       |

# GBU4 Series

## Single Phase Bridge Rectifiers



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