

# GBJ6005 THRU GBJ610

## SINGLE PHASE 6.0 AMP BRIDGE RECTIFIERS



### FEATURES

- \* Ideal for printed circuit board
- \* Low forward voltage
- \* Low leakage current
- \* Mounting position: Any

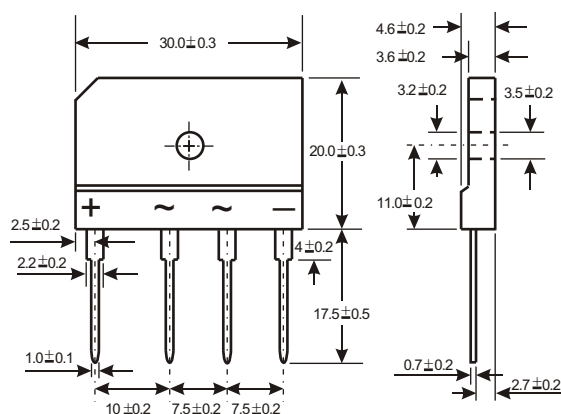
### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

6.0 Amperes

### GBJ



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                        | GBJ6005    | GBJ601 | GBJ602 | GBJ604 | GBJ606 | GBJ608 | GBJ610 | UNITS |
|----------------------------------------------------------------------------------------------------|------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                             | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum RMS Voltage                                                                                | 35         | 70     | 140    | 280    | 420    | 560    | 700    | V     |
| Maximum DC Blocking Voltage                                                                        | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum Average Forward (with heatsink Note 2)                                                     | 6.0        |        |        |        |        |        |        | A     |
| .375"(9.5mm) Lead Length at Tc=110°C (Without heatsink)                                            | 2.8        |        |        |        |        |        |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 150        |        |        |        |        |        |        | A     |
| Maximum Forward Voltage Drop per Bridge Element at 3.0A D.C.                                       | 1.0        |        |        |        |        |        |        | V     |
| Maximum DC Reverse Current Ta=25°C                                                                 | 5.0        |        |        |        |        |        |        | μA    |
| at Rated DC Blocking Voltage Ta=100°C                                                              | 500        |        |        |        |        |        |        | μA    |
| Typical Thermal Resistance R <sub>jc</sub> (Note 1)                                                | 3.4        |        |        |        |        |        |        | °C/W  |
| Typical Thermal Resistance R <sub>jl</sub> (Note 2)                                                | 5.0        |        |        |        |        |        |        | °C/W  |
| Operating Temperature Range, T <sub>J</sub>                                                        | -55 — +150 |        |        |        |        |        |        | °C    |
| Storage Temperature Range, T <sub>stg</sub>                                                        | -55 — +150 |        |        |        |        |        |        | °C    |

#### NOTES:

1. Thermal Resistance from Junction to Case with device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Lead without Heatsink.

# RATING AND CHARACTERISTIC CURVES (GBJ6005 THRU GBJ610)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

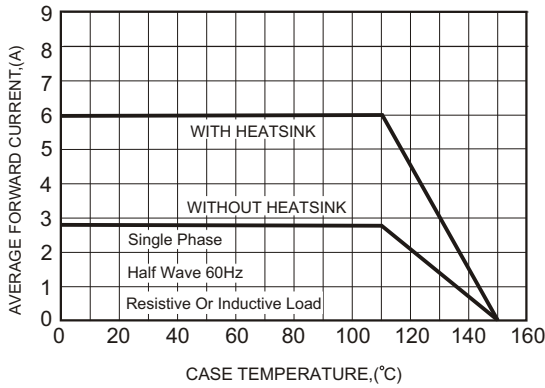


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

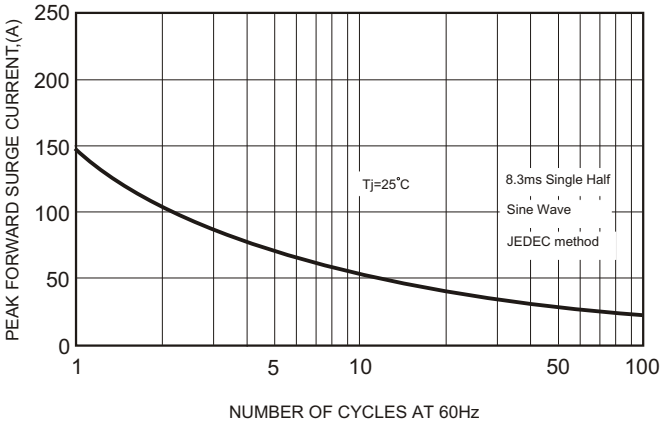


FIG.3-TYPICAL FORWARD CHARACTERISTICS

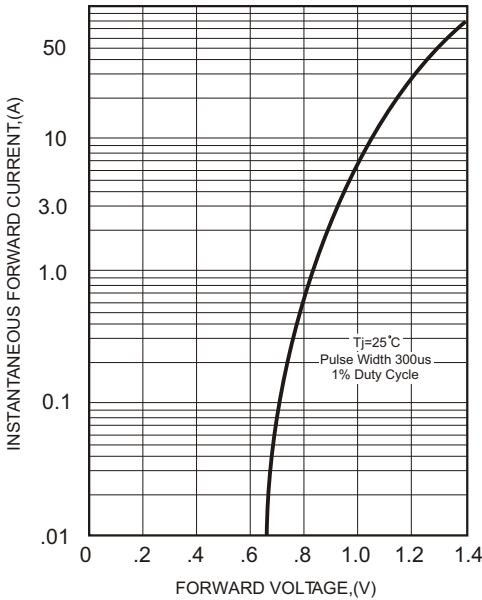


FIG.4-TYPICAL REVERSE CHARACTERISTICS

