# GBJ10005 thru GBJ1010

## 10.0 A Single-Phase Silicon Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

## Features

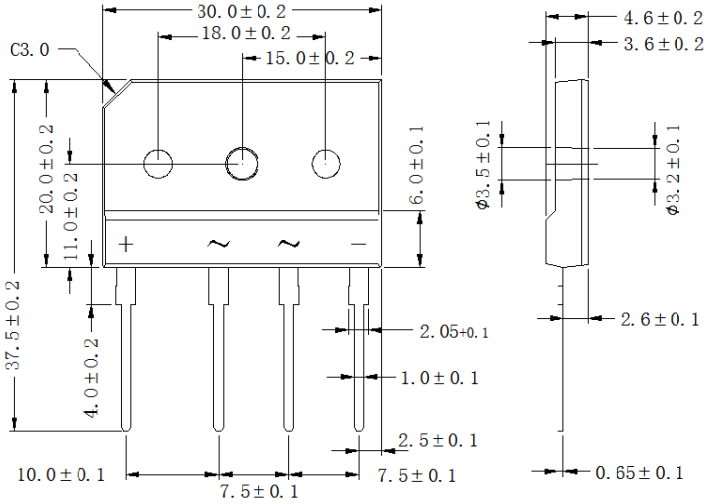
- Ideal for printed circuit board mounting
- This series is UL listed under the Recognized Component Index, file number E484648
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 260℃/5 seconds at 5 lbs (2.3kg) tension

## Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique

Terminals: Plated leads solderable per MIL-STD-202, Method 208

Mounting Position: Any




Dimensions in inches and (milimeters)

## Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

| CHARACTERISTICS | SYMBOL | GBJ 10005 | GBJ 1001 | GBJ 1002 | GBJ 1004 | GBJ 1006 | GBJ 1008 | GBJ 1010 | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 30 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward (with heatsink Note 2) Rectified Current @ $T_C$=100℃ (without heatsink) | $I_{(AV)}$ | 10.0<br>2.5 | | | | | | | A |
| Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method) | $I_{FSM}$ | 200 | | | | | | | A |
| Maximum Forward Voltage at 5.0A DC | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @ $T_J$=25℃ at Rated DC Blocking Voltage @ $T_J$=125℃ | $I_R$ | 10<br>500 | | | | | | | uA |
| Typical Thermal Resistance (Note2) | $R_{\theta JC}$ | 2.3 | | | | | | | ℃/W |
| Operating Temperature Range | $T_J$ | -55 to +150 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

NOTES: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Device mounted on 300mm*300mm*1.6mm cu plate heatsink.

## Rating and Characteristic Curves ( TA = 25°C Unless otherwise noted )

**GBJ/KBJ10005 thru GBJ/KBJ1010**

FIG.1-FORWARD CURRENT DERATING CURVE

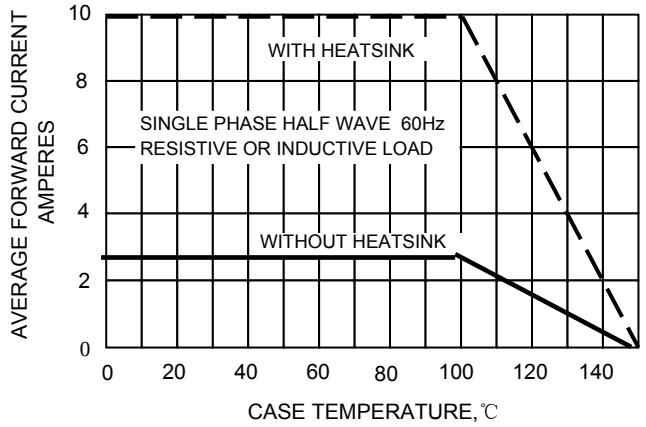



FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

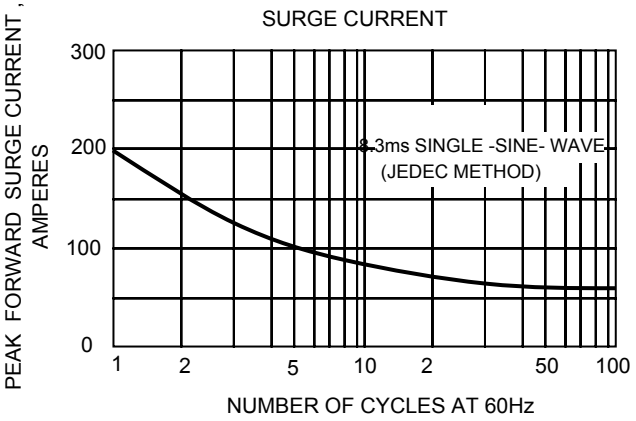



FIG.3-TYPICAL JUNCTION CAPACITANCE

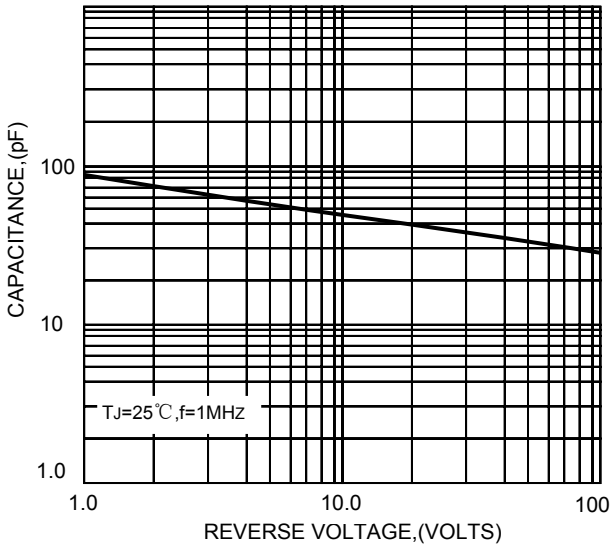



FIG.4-TYPICAL FORWARD CHARACTERISTICS

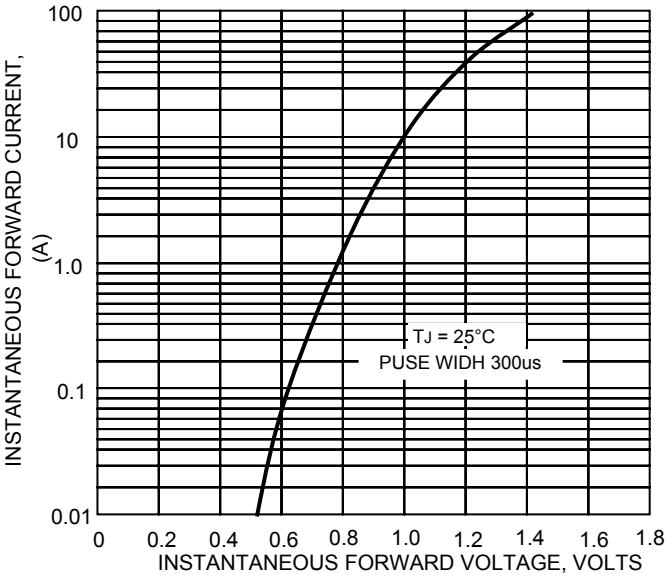
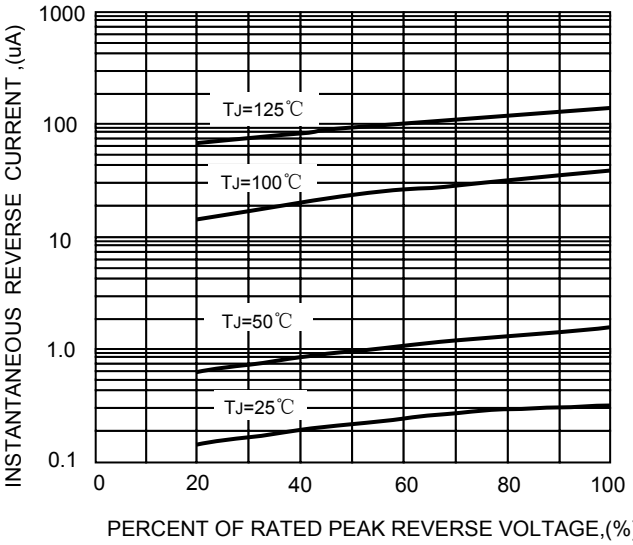



FIG.5-TYPICAL REVERSE



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