Central Plate Electronics Co., Ltd.

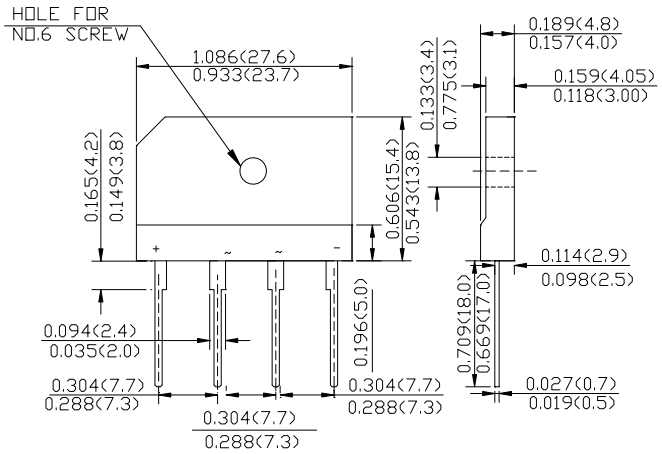
# SILICON BRIDGE RECTIFIERS
# GLASS PASSIVATED BRIDGE RECTIFIERS

## GBJ/KBJ15A thru GB /KBJ15M 50 to 1000 V 15.0 A

## FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Reliable low cost construction utilizing Molded plastic technique results in Inexpensive product
- The plastic material has UL Flammability classification 94V-O

**GBJ-3S**




## Maximum Ratings and Electrical Characteristics

Ratings 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 | GBJ KBJ 15A | GBJ KBJ 15B | GBJ KBJ 15D | GBJ KBJ 15G | GBJ KBJ 15J | GBJ KBJ 15K | GBJ KBJ 15M | Units |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward (with heatsink Note2) Rectified Current @ $T_C$ =100℃ (without heatsink) | $V_{(AV)}$ | 15.0<br>3.2 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load | $I_{FSM}$ | 220 | | | | | | | Amp |
| Maximum DC Forward Voltage at 7. 5A DC | $V_F$ | 1. 1 | | | | | | | Volts |
| Maximum DC Reverse Current at rated @ $T_J$=25℃<br>DC Blocking Voltage Per Element @ $T_J$=125℃ | $I_R$ | 10.0<br>500 | | | | | | | uAmp |
| $I^2t$ Rating for fusing (t<8.3ms) | $I^2T$ | 240 | | | | | | | $A^2S$ |
| Typical Junction Capacitance ( Note 1) | $C_J$ | 60 | | | | | | | pF |
| Typical Thermal Resistance ( Note 2) | $R_{\Theta JC}$ | 0.6 | | | | | | | ℃/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 x 300mm X 1.6mm Cu Plate Heatsink.

# RATINGS AND CHARACTERISTIC CURVES (GBJ/KBJ15A THRU GBJ/KBJ15M)

**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**

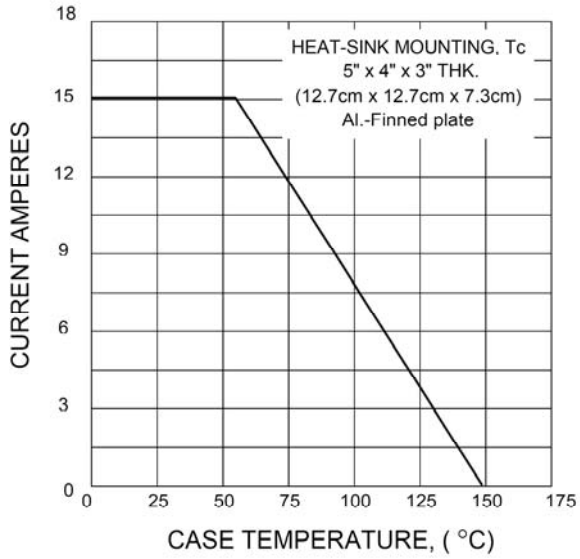



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

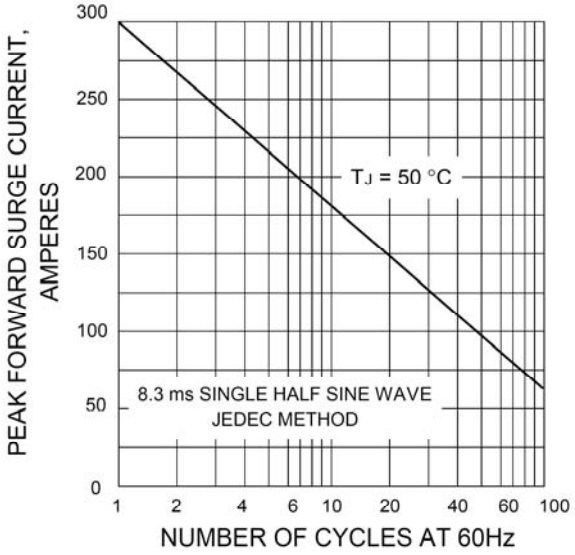



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**

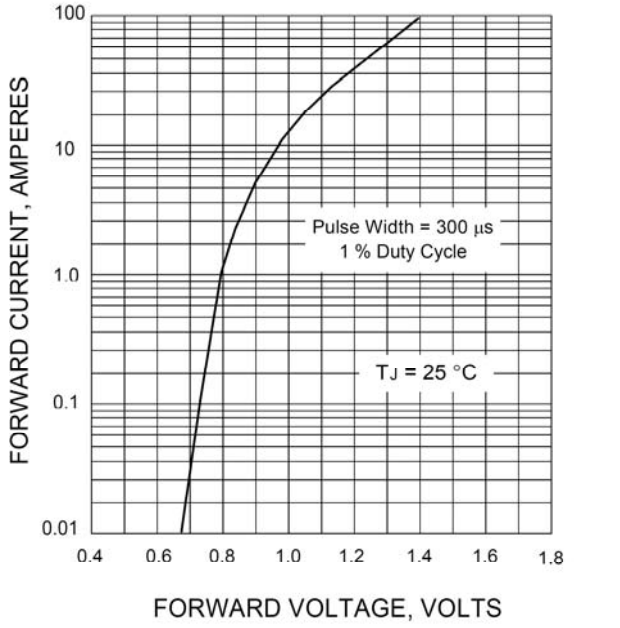



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**