# GBJ150X SERIES

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

产　品　规　格　确　认　书

# GBJ15005 THRU GBJ1510

## *GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER*

| *REVERSE VOLTAGE:* | **50 to 1000 VOLTS** |
|---|---|
| *FORWARD CURRENT:* | **15.0 AMPERE** |

### *FEATURES*

· Glass passivated chip junction

· Reliable low cost construction utilizing molded
  plastic technique

· Ideal for printed circuit board

· Low forward voltage drop

· Low reverse leakage current

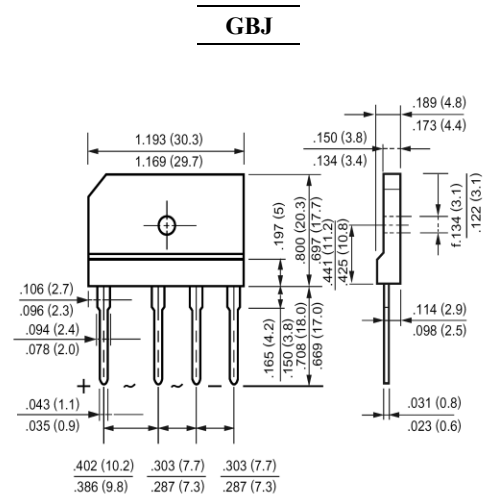· High surge current capability

### *MECHANICAL DATA*

Case: Molded plastic, GBJ

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202,

method 208 guaranteed

Mounting position: Any

Weight: 0.23ounce, 6.6gram

**GBJ**



**Dimensions in inches and (millimeters)**

## *Maximum Ratings and Electrical Characteristics*

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, $60H_Z$, resistive or inductive load.

For capacitive load, derate current by 20% .

| | Symbols | GBJ15005 | GBJ1501 | GBJ1502 | GBJ1504 | GBJ1506 | GBJ1508 | GBJ1510 | 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 Rectified Current with Heatsink at $T_C$=100** | $I_{(AV)}$ | 15.0 | | | | | | | **Amp** |
| **Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)** | $I_{FSM}$ | 200 | | | | | | | **Amp** |
| **Maximum Forward Voltage Drop per Element at 7.5A DC and 25** | $V_F$ | 1.05 | | | | | | | **Volts** |
| **Maximum Reverse Current       at $T_A$=25 at Rated DC Blocking Voltage          $T_A$=125** | $I_R$ | 10.0 500 | | | | | | | **uAmp** |
| **Typical Junction Capacitance (Note 1)** | $C_J$ | 60 | | | | | | | **pF** |
| **Typical Thermal Resistance (Note 2)** | $R_{0JC}$ | 0.8 | | | | | | | **/W** |
| **Operating and Storage Temperature Range** | $T_J$   Tstg | -55 to +150 | | | | | | | |

**NOTES:**

1- Measured at 1 $MH_Z$ and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance fromn Junction to Case with Device Mounted on 300mm x 300mm x 1.6mmCu Plate Heatsink.

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## RATINGS AND CHARACTERISTIC CURVES

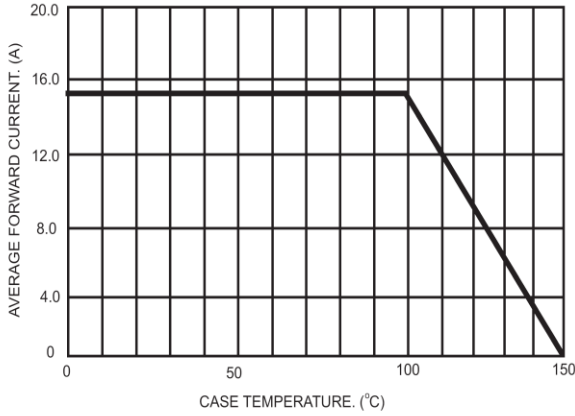FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

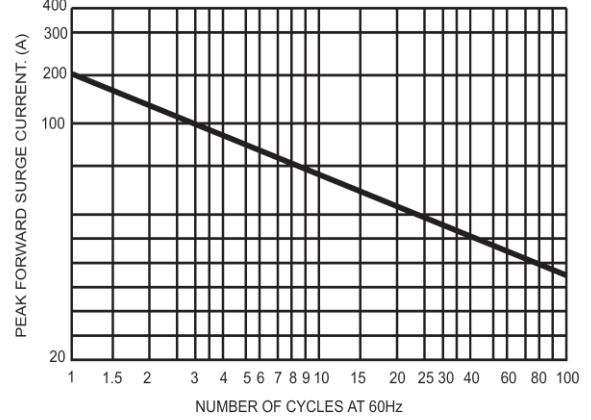FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT
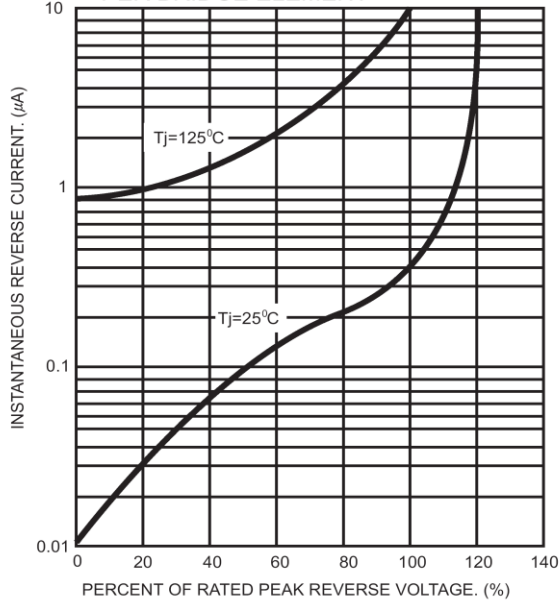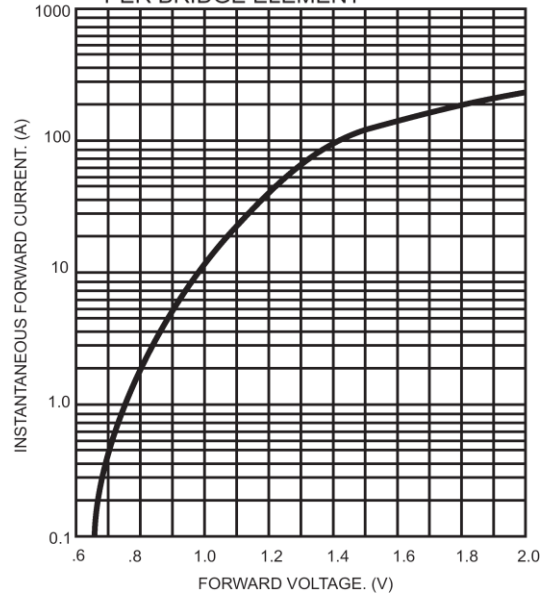
FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

FIG.5- TYPICAL TRANSIENT THERMAL IMPEDANCE