

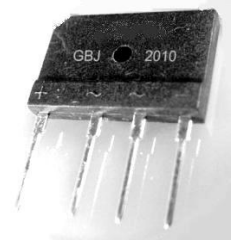
Glass Passivated Bridge Rectifiers

 Lead(Pb)-Free

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.
- * Plastic package used has Underwriters Laboratory Flammability Classification 94V-0.

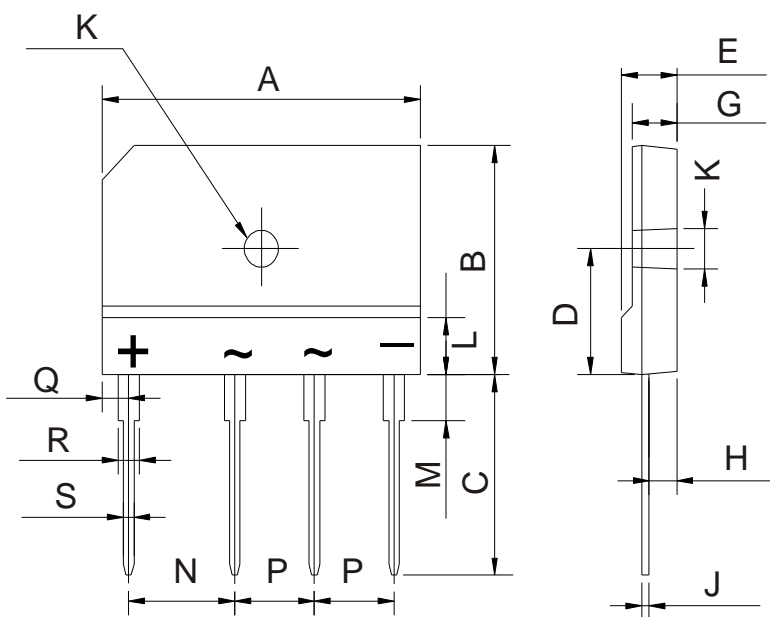
REVERSE VOLTAGE
50 to 1000 VOLTS
FORWARD CURRENT
25 AMPERES



GBJ

GBJ Outline Dimensions

Unit:mm



| Dim | Min | Max |
|-----|----------|-------|
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | 17.0 | 18.0 |
| D | 10.8 | 11.2 |
| E | 4.4 | 4.8 |
| G | 3.4 | 3.8 |
| H | 2.5 | 2.9 |
| J | 0.6 | 0.8 |
| K | Ø 3.1 | Ø 3.4 |
| L | 5.1(Typ) | |
| M | 3.6 | 4.2 |
| N | 9.8 | 10.2 |
| P | 7.3 | 7.7 |
| Q | 2.3 | 2.7 |
| R | 2.0 | 2.4 |
| S | 0.9 | 1.1 |

Maximum Ratings And Electrical Characteristics

Rating at 25 ambient temperature unless otherwise specified.

Singlephase, halfwave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Characteristic | Symbol | 25005 | 2501 | 2502 | 2504 | 2506 | 2508 | 2510 | Units |
|--|-----------------|-------------|------|------|------|------|------|------|---------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 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 Note2) Rectified Current @ $T_C=100^{\circ}C$ (without heatsink) | I_{FAV} | 25.0 4.2 | | | | | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method) | I_{FSM} | 350 | | | | | | | A |
| Typical Junction Capacitance Per Element (Note1) | C_J | 85 | | | | | | | pF |
| Typical Thermal Resistance (Note2) | $R_{\theta JC}$ | 0.6 | | | | | | | $^{\circ}C/W$ |
| Operating junction temperature range | T_J | -50 to +150 | | | | | | | $^{\circ}C$ |
| Storage temperature range | T_{STG} | -50 to +150 | | | | | | | $^{\circ}C$ |

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.

Electrical Characteristic

| Characteristic | Symbol | 25005 | 2501 | 2502 | 2504 | 2506 | 2508 | 2510 | Units |
|--|--------|-------------|------|------|------|------|------|------|---------|
| Maximum Forward Voltage @ 12.5A | V_F | 1.1 | | | | | | | V |
| Maximum Instantaneous Reverse Current Rated DC Voltage, $T_A=25^{\circ}C$ $T_A=125^{\circ}C$ | I_R | 10.0 500 | | | | | | | μA |
| I^2t Rating for Fusing ($t < 8.3ms$) | I^2t | 510 | | | | | | | A^2s |

Ratings and Characteristics Curves

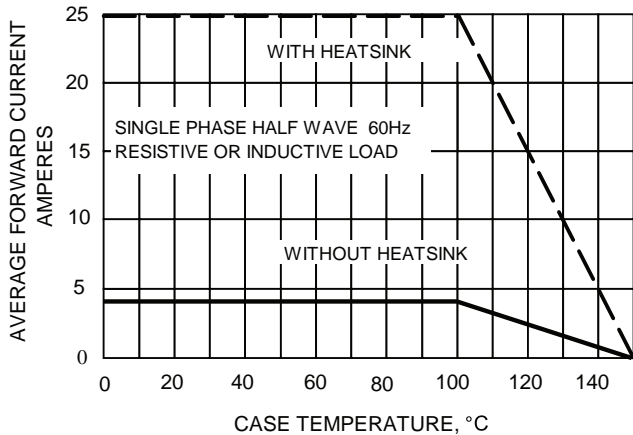


FIG.1-FORWARD CURRENT DERATING CURVE

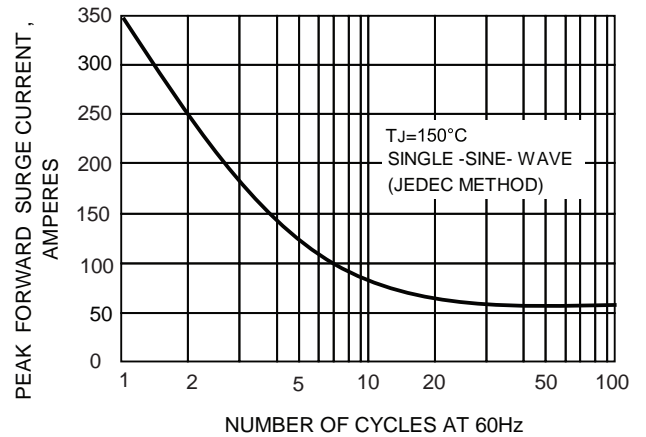


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

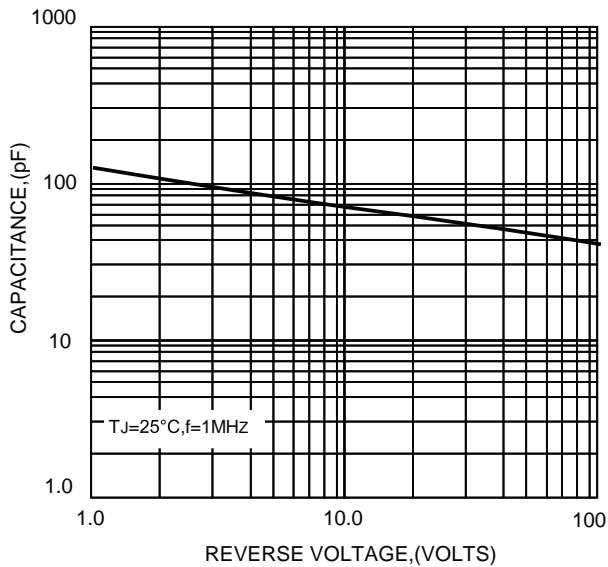


FIG.3-TYPICAL JUNCTION CAPACITANCE

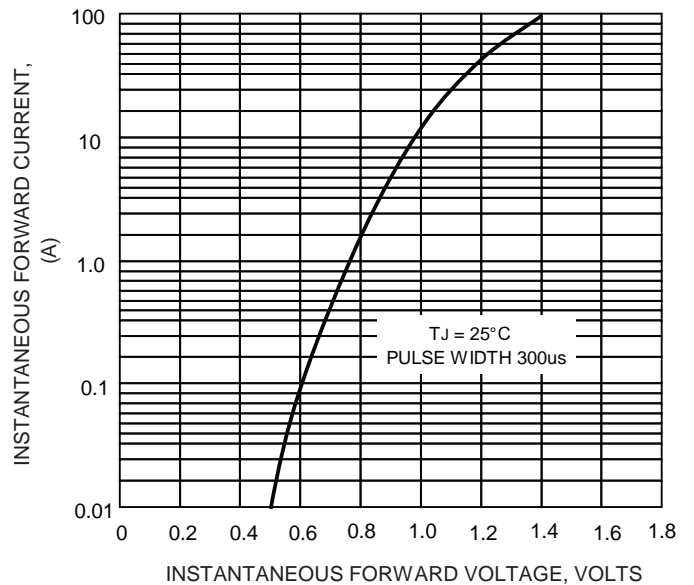


FIG.4-TYPICAL FORWARD CHARACTERISTICS

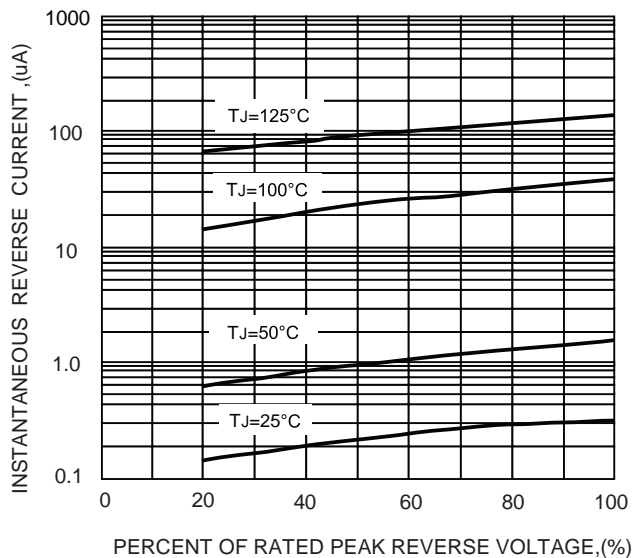


FIG.5-TYPICAL REVERSE CHARACTERISTICS