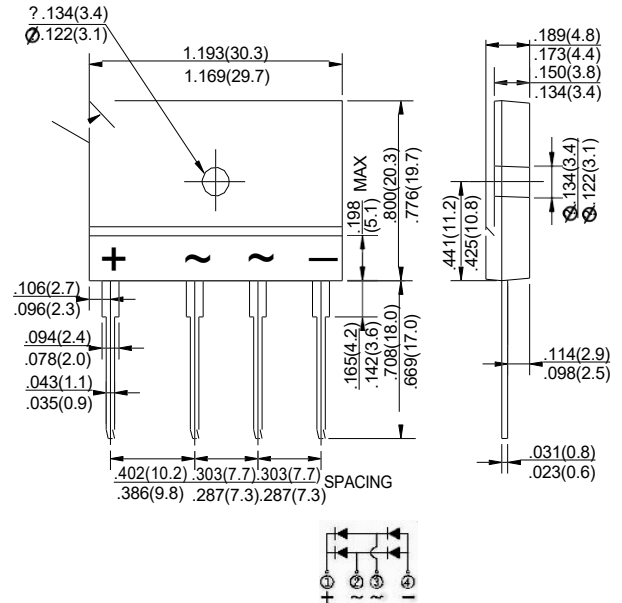


## SILICON BRIDGE RECTIFIERS

### Features

- ◆ Glass Passivated Chip Junction
- ◆ Rating to 1000V PRV
- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic
- ◆ technique Plastic material has U/L lammability classification 94V-0
- ◆ Low forward voltage drop,high current capability

### GBJ



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                        | SYMBOLS         | GBJ35005    | GBJ3501 | GBJ3502 | GBJ3504 | GBJ3506 | GBJ3508 | GBJ3510 | UNITS               |
|------------------------------------------------------------------------------------------------------------------|-----------------|-------------|---------|---------|---------|---------|---------|---------|---------------------|
| Marking Code                                                                                                     |                 |             |         |         |         |         |         |         |                     |
| 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 Note 2)<br>Rectified current @ $T_c=100^\circ\text{C}$ (without heatsink) | $I_{AV}$        | 35.0<br>5.0 |         |         |         |         |         |         | A                   |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)           | $I_{FSM}$       | 400         |         |         |         |         |         |         | A                   |
| Rating for Fusing ( $t < 8.3\text{ms}$ )                                                                         | $I^2t$          | 510         |         |         |         |         |         |         | A <sup>2</sup> s    |
| Maximum forward voltage at 17.5A DC                                                                              | $V_F$           | 1.1         |         |         |         |         |         |         | V                   |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$        | $I_R$           | 10<br>0.5   |         |         |         |         |         |         | $\mu\text{A}$<br>mA |
| Typical Junction Capacitance (Note 1)                                                                            | $C_J$           | 85          |         |         |         |         |         |         | pF                  |
| Typical Thermal Resistance (Note 2)                                                                              | $R_{\theta JC}$ | 0.6         |         |         |         |         |         |         | $^\circ\text{C/W}$  |
| Operating junction temperature range                                                                             | $T_J$           | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$    |
| storage temperature range                                                                                        | $T_{STG}$       | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$    |

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.  
3. The typical data above is for reference only.