

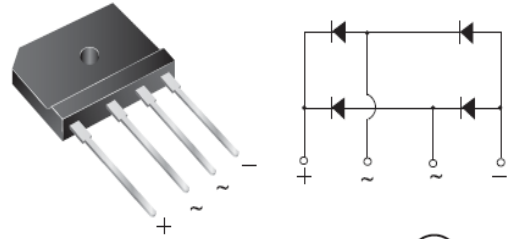


# GL2506-T2 THRU GL2508-T2

Glass Passivated Single In-Line Bridge Rectifiers  
 Reverse voltage-600V to 800V  
 Forward current-25Amperes

## FEATURES

- Glass passivated chip junction
- Thin single in-line package
- Ideal for printed circuit boards
- High surge current capability
- High case dielectric strength of 2500 V<sub>RMS</sub>
- Low forward voltage drop
- Solder dip 260 °C, 10 s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



## MECHANICAL DATA

- Case: GBJ(5S), molded epoxy body , Epoxy meets UL 94V-0 flammability rating
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22B-106
- Polarity: As marked on body
- Mounting Torque: 10cm-kg(8.8 inches-lbs)maximum
- Recommended Torque: 5.7cm-kg(5 inches-lbs)

| PRIMARY CHARACTERISTICS                                      |              |
|--|--------------|
| I <sub>F(AV)</sub>   | 25 A         |
| V <sub>RRM</sub>   | 600 V , 800V |
| I <sub>FSM</sub>   | 450A         |
| V <sub>F</sub> at I <sub>F</sub> =12.5A, T <sub>A</sub> =125 | 0.80         |
| I <sub>R</sub>   | 10μA         |
| T <sub>J</sub> max.  | 150 °C       |

## TYPICAL APPLICATIONS

General purpose use in ac-to-dc full wave rectification for switching Power Supply.Home Appliances, Office Equipment, Industrial Automation applications

| MAXIMUM RATINGS (T <sub>A</sub> = 25 °C unless otherwise noted)                                  |                                    |                    |           |       |
|--|------------------------------------|--------------------|-----------|-------|
| PARAMETER  | SYMBOL                             | GL2506-T2          | GL2508-T2 | UNIT  |
| Maximum repetitive peak reverse voltage  | V <sub>RRM</sub>                   | 600                | 800       | V     |
| Maximum RMS voltage  | V <sub>RMS</sub>                   | 420                | 560       | V     |
| Maximum DC blocking voltage  | V <sub>DC</sub>                    | 600                | 800       | V     |
| Maximum average forward rectified output current at  | T <sub>C</sub> =120 <sup>(1)</sup> | I <sub>F(AV)</sub> | 25        | A     |
|  | T <sub>A</sub> =25 <sup>(2)</sup>  | I <sub>F(AV)</sub> | 4.0       |       |
| Peak forward surge current,8.3 ms single half sine-wave superimposed on rated load(JEDEC Method) | I <sub>FSM</sub>                   | 450                |           | A     |
| Dielectric strength (Terminals to case, AC)  | V <sub>ISO</sub>                   | 2500               |           | Volts |
| Operating junction and storage temperature range   | T <sub>J</sub> , T <sub>STG</sub>  | - 55 to + 150      |           | °C    |

Notes: (1) Unit case mounted with heatsink  
 (2) Unit case mounted on PCB without heatsink



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| ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted) |  |        |           |           |       |
|--|--|--------|-----------|-----------|-------|
| PARAMETER  | TEST CONDITIONS  | SYMBOL | GL2506-T2 | GL2508-T2 | UNIT  |
| Maximum instantaneous forward voltage drop per leg at 12.5A                | I <sub>F</sub> =12.5 A   | TA=25  | 0.92      |           | Volts |
|  |  | TA=125 | 0.80      |           |       |
| Maximum DC reverse current at rated DC blocking voltage                    | TA=25  |        | 10        |           | μA    |
|  | TA=125   |        | 500       |           |       |
| Maximum reverse recovery time  | I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A |        | 6         |           | us    |

| THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted) |                                 |           |           |      |
|---|---------------------------------|-----------|-----------|------|
| PARAMETER   | SYMBOL                          | GL2506-T2 | GL2508-T2 | UNIT |
| Maximum thermal resistance  | R <sub>θJC</sub> <sup>(1)</sup> | 1.5       |           | /W   |
|   | R <sub>θJA</sub> <sup>(2)</sup> | 25        |           |      |

Notes: (1) Thermal resistance from junction to case, Unit case mounted with heatsink  
 (2) Thermal resistance from junction to ambient, Unit case mounted on PCB without heatsink

| ORDERING INFORMATION (Example) |                 |               |               |
|--------------------------------|-----------------|---------------|---------------|
| PREFERRED P/N                  | UNIT WEIGHT (g) | BASE QUANTITY | DELIVERY MODE |
| GL2506-T2                      | 7.141           | 20            | Tube          |
| GL2506-T2                      | 7.141           | 40            | Paper tray    |

## RATINGS AND CHARACTERISTICS CURVES

(T<sub>A</sub> = 25 °C unless otherwise noted)

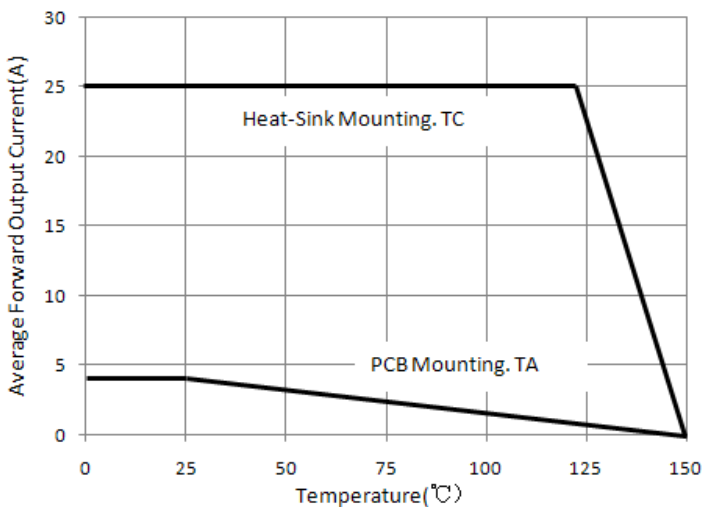


Figure 1. Derating Curve Output Rectified Current

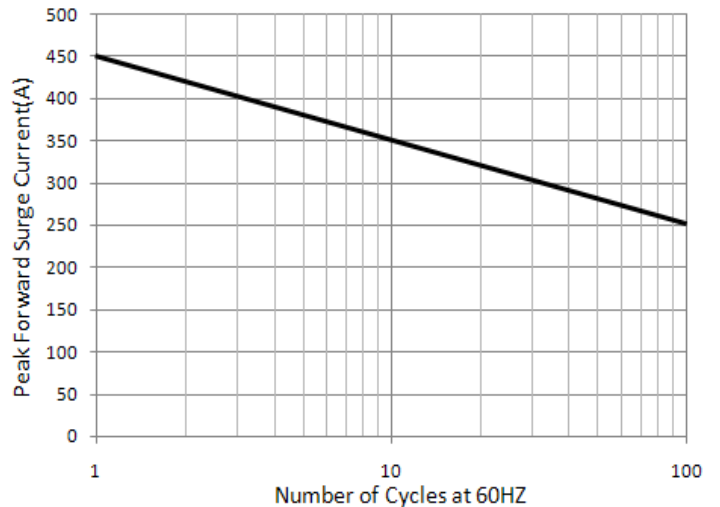


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg



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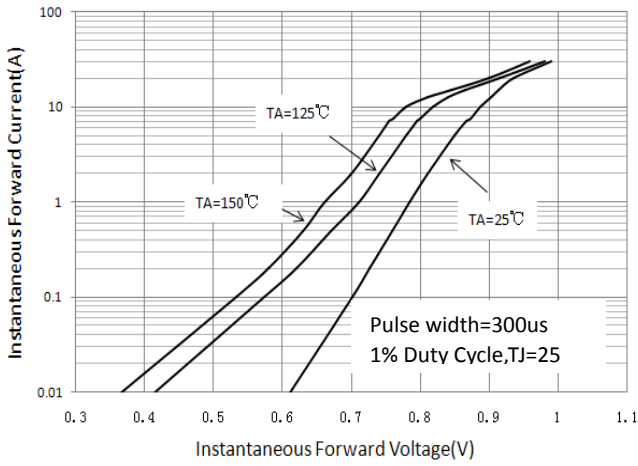


Figure 3. Typical Forward Characteristics Per Leg

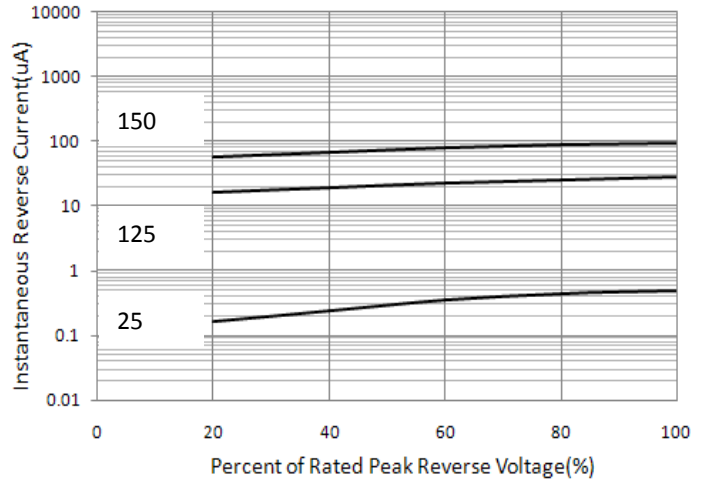


Figure 4. Typical Reverse Characteristics Per Leg

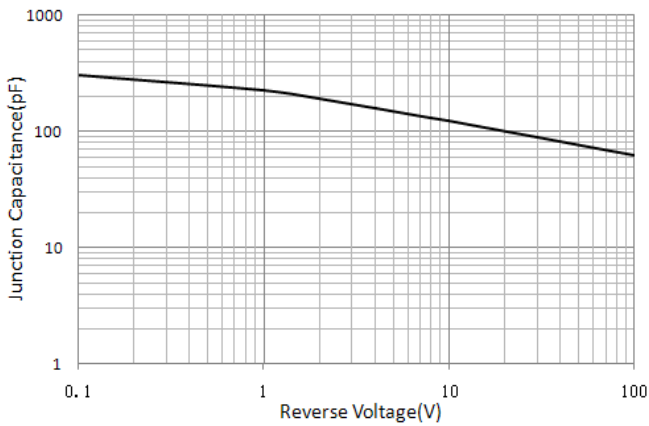


Figure 5. Typical Junction Capacitance Per Leg

## PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

