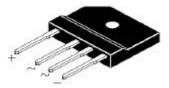




GLASS PASSIVATED SINGLE PHASE BRIDGE RECTIFIERS

GBJ25005 - GBJ2510



GBJ PLASTIC PACKAGE

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C Ambient temperature unless specified otherwise. Single phase, half wave, 60Hz resistive or inductive load. For capacitive load, derate current by 20%

| DESCRIPTION | SYMBOL | GBJ | GBJ | GBJ | GBJ | GBJ | GBJ | GBJ | UNIT |
|--|-------------------------|-------|------|------|---------|------|------|------|------|
| DESCRIPTION | STWDUL | 25005 | 2501 | 2502 | 2504 | 2506 | 2508 | 2510 | |
| Maximum Peak Repetitive 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 Rectified Current | Lun | | | | 25 | | | | А |
| with heat sink at T _c =100ºC | I _(AV) | | | | | | | | |
| Peak Forward Surge Current 8.3ms | | | | | | | | | |
| single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | | | | 300 | | | | A |
| Maximum Forward Drop Per Element Voltage at | VF | | | | 1.05 | | | | V |
| I _F =12.5A DC and 25⁰C | ۷F | | | | 1.00 | | | | v |
| Maximum DC Reverse Current at $T_a=25^{\circ}C$ | | 10 | | | | | | μA | |
| at Rated DC Blocking Voltage at $T_a=125^{\circ}C$ | I _R | 500 | | | | | | | μA |
| Typical Junction Capacitance | *CJ | 85 | | | | pF | | | |
| Typical Thermal Resistance Junction to Case | **R _{th (j-c)} | | | | 0.6 | | | | °C/W |
| Operating and Storage Temperature Range | $T_{J_{J}}T_{stg}$ | | | - ! | 55 to + | 150 | | | °C |

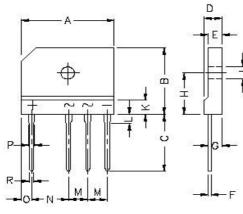
*Measured at 1 MHz and applied reverse voltage of 4.0 V

**Thermal Resistance from Junction to Case with Device Mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink

GBJ25005_2510Rev031005E

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GBJ Plastic Package



All dimensions are in mm 690 Pcs/BOX 1.38K Pcs/Carton

| DIM | MIN. | NOM | MAX. | |
|-------------|---------------|---------------|---------------|--|
| A | 29.7 | | 30.3 | |
| A B C | 17.7 | - | 20.3 | |
| С | 17.0 | | 18.0 | |
| D | 4.4 | 84 | 4.8 | |
| E F G | 3.4 | s—s | 3.8 | |
| F | 0.6 | | 0.8 | |
| | 2.5 | | 2.9 | |
| Н | 10.8 | <u>1006</u> | 11.2 | |
| Ļ | 3.1 | <u>2006</u> | 3.4 | |
| К | 31 <u></u> 41 | 5.0 | 86 <u>8</u> 8 | |
| L | 3.8 | | 4.2 | |
| M | 7.3 | <u>1006</u> 0 | 7.7 | |
| N | 9.8 | | 10.2 | |
| 0 | 2.3 | | 2.7 | |
| Р | 2.0 | | 2.4 1.1 | |
| R | 0.9 | | 1.1 | |

Component Disposal Instructions

- 1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
- 2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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