

GBJ15005 - GBJ1510

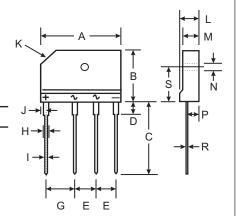
15A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 240A Peak
- Ideal for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- Lead Free Finish/RoHS Compliant (Note 4)

Mechanical Data

- Case: GBJ
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208 @3
- Lead Free Plating (Tin Finish).
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Marking: Type Number
- Weight: 6.6 grams (approximate)



| GBJ | | | | | | |
|----------------------|-----------|-------|--|--|--|--|
| Dim | Min | Max | | | | |
| Α | 29.70 | 30.30 | | | | |
| В | 19.70 | 20.30 | | | | |
| С | 17.00 | 18.00 | | | | |
| D | 3.80 | 4.20 | | | | |
| Ε | 7.30 | 7.70 | | | | |
| G | 9.80 | 10.20 | | | | |
| Н | 2.00 | 2.40 | | | | |
| I | 0.90 | 1.10 | | | | |
| J | 2.30 | 2.70 | | | | |
| K | 3.0 X 45° | | | | | |
| L | 4.40 | 4.80 | | | | |
| M | 3.40 | 3.80 | | | | |
| N | 3.10 | 3.40 | | | | |
| Р | 2.50 | 2.90 | | | | |
| R | 0.60 | 0.80 | | | | |
| S | 10.80 | 11.20 | | | | |
| All Dimensions in mm | | | | | | |
| | | | | | | |

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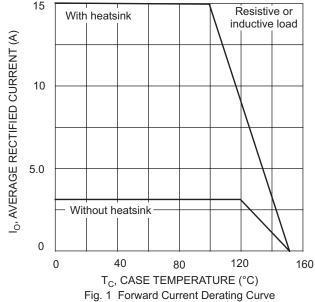
Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

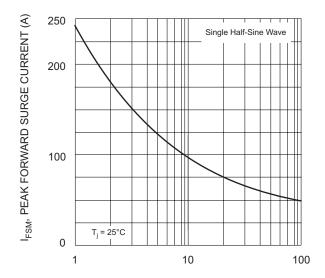
Single phase, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | GBJ 15005 | GBJ 1501 | GBJ 1502 | GBJ 1504 | GBJ 1506 | GBJ 1508 | GBJ 1510 | Unit |
|--|--|--------------|-------------|-------------|-------------|-------------|------------------|-------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Forward Rectified Output Current @ T _C = 100°C | | 15 | | | | | | Α | |
| Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load | | 240 | | | | | Α | | |
| Forward Voltage (per element) @ I _F = 7.5A DC | | 1.05 | | | | | V | | |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | | 10 500 | | | | | μА | | |
| I ² t Rating for Fusing (t < 8.3ms) (Note 1) | | 240 | | | | | A ² s | | |
| Typical Total Capacitance per Element (Note 2) | | 60 | | | | | pF | | |
| Typical Thermal Resistance, Junction to Case (Note 3) | | 0.8 | | | | | °C/W | | |
| Operating and Storage Temperature Range | | -65 to +150 | | | | | °C | | |

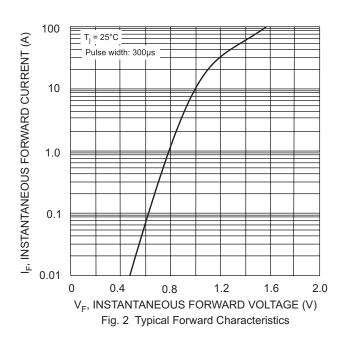
- Notes: 1. Non-repetitive, for t > 1ms and < 8.3 ms.
 - 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 - 3. Thermal resistance from junction to case per element. Unit mounted on 300 x 300 x 1.6mm copper plate heat sink.
 - 4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.







NUMBER OF CYCLES AT 60 Hz Fig. 3 Maximum Non-Repetitive Surge Current



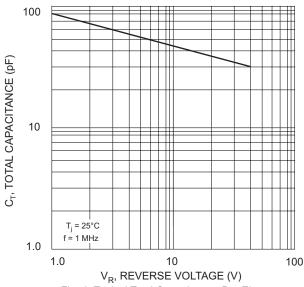
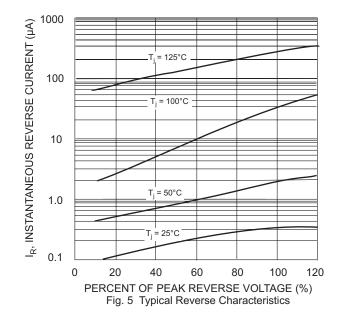


Fig. 4 Typical Total Capacitance, Per Element





Ordering Information (Note 5)

| Device | Packaging | Shipping |
|------------|-----------|----------|
| GBJ15005-F | GBJ | 15/Tube |
| GBJ1501-F | GBJ | 15/Tube |
| GBJ1502-F | GBJ | 15/Tube |
| GBJ1504-F | GBJ | 15/Tube |
| GBJ1506-F | GBJ | 15/Tube |
| GBJ1508-F | GBJ | 15/Tube |
| GBJ1510-F | GBJ | 15/Tube |

Notes: 5. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.

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