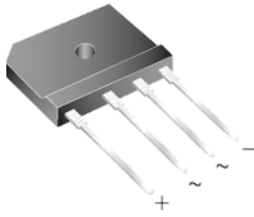


**GBJ**



**Features**

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020  
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874



**Primary characteristics**

|                        |              |
|------------------------|--------------|
| $I_{F(AV)}$            | 15A          |
| $V_{RRM}$              | 200V to 800V |
| $I_{FSM}$              | 200A         |
| $I_{RM}$               | 10uA         |
| $V_{FM}$ at $I_F=7.5A$ | 1V           |
| $T_J$ max.             | 150 °C       |

**Applications**

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

**Mechanical data**

- Case: GBJ
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque: 10cm·kg (8.8 inches·lbs) max.
- Recommended Torque: 5.7 cm·kg (5 inches·lbs)

**Maximum rating (Ta=25°C unless otherwise noted)**

| Parameter                                                                | Sym         | GBJ        |      |      |      | Unit             |
|--------------------------------------------------------------------------|-------------|------------|------|------|------|------------------|
|                                                                          |             | 1502       | 1504 | 1506 | 1508 |                  |
| Max. repetitive peak reverse voltage                                     | $V_{RRM}$   | 200        | 400  | 600  | 800  | V                |
| Max. RMS reverse voltage                                                 | $V_{RMS}$   | 140        | 280  | 420  | 560  | V                |
| Max. DC blocking voltage                                                 | $V_{DC}$    | 200        | 400  | 600  | 800  | V                |
| Max. average forward current                                             | $I_{F(AV)}$ | 15         |      |      |      | A                |
| Non-repetitive peak forward surge current<br>8.3ms single half-sine-wave | $I_{FSM}$   | 200        |      |      |      | A                |
| Rating for fusing, $1ms \leq t \leq 8.3ms$                               | $I^2t$      | 166        |      |      |      | A <sup>2</sup> S |
| Max. instantaneous forward voltage drop per diode                        | $V_{FM}$    | 1(7.5A)    |      |      |      | V                |
| Max. instantaneous reverse current at rated<br>DC blocking voltage       | $I_{RM}$    | Ta=25 °C   | 5    |      |      | μA               |
|                                                                          |             | Ta=125 °C  | 250  |      |      | μA               |
| Operating junction temperature                                           | $T_J$       | -55 ~ +150 |      |      |      | °C               |
| Storage temperature                                                      | $T_{STG}$   | -55 ~ +150 |      |      |      | °C               |
| Thermal resistance junction to ambient (Note 2)                          | $R_{J-A}$   | 23         |      |      |      | °C/W             |
| Thermal resistance junction to cover (Note 1)                            | $R_{J-C}$   | 1.5        |      |      |      | °C/W             |

**Notes**

- (1) Unit case mounted on aluminum plate heatsink
- (2) Units mounted on PCB without heatsink



Ordering information (Example)

| PREFERRED | UNIT WEIGHT (g) | PREFERRED PACKAGE CODE | BASE QUANTITY | DELIVERY MODE |
|-----------|-----------------|------------------------|---------------|---------------|
| GBJ1506   | 7.0             | 45                     | 20            | Tube          |

Typical characteristics

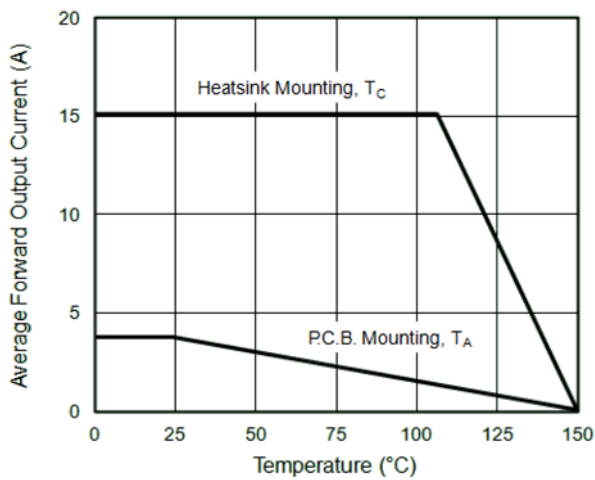
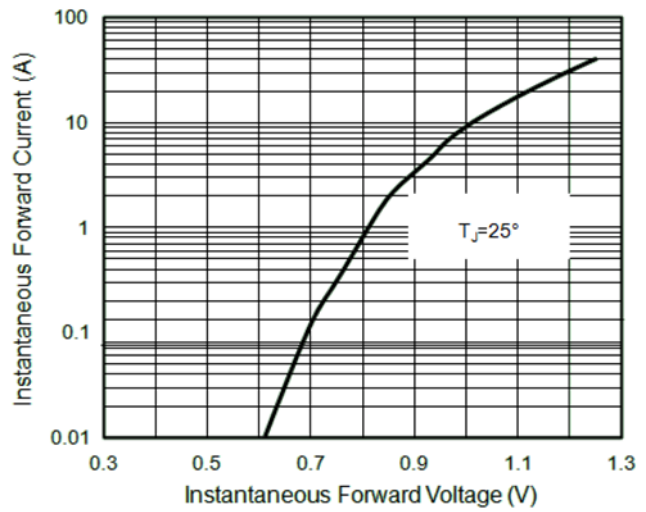
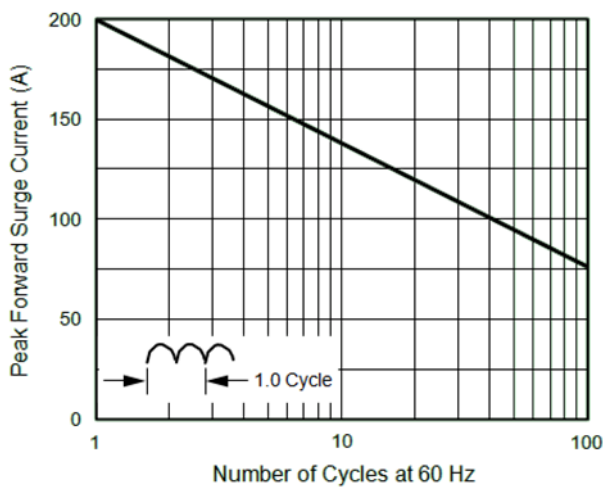


Fig. 1 - Derating Curve Output Rectified Current



Typical Forward Characteristics Per Diode



Maximum Non-Repetitive Peak Forward Surge Current Per Diode

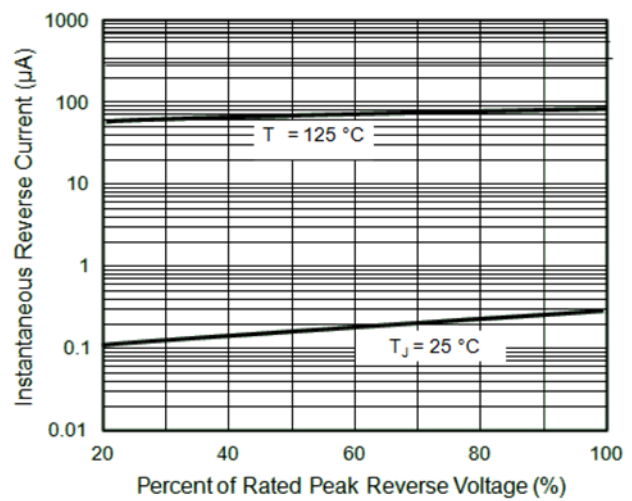
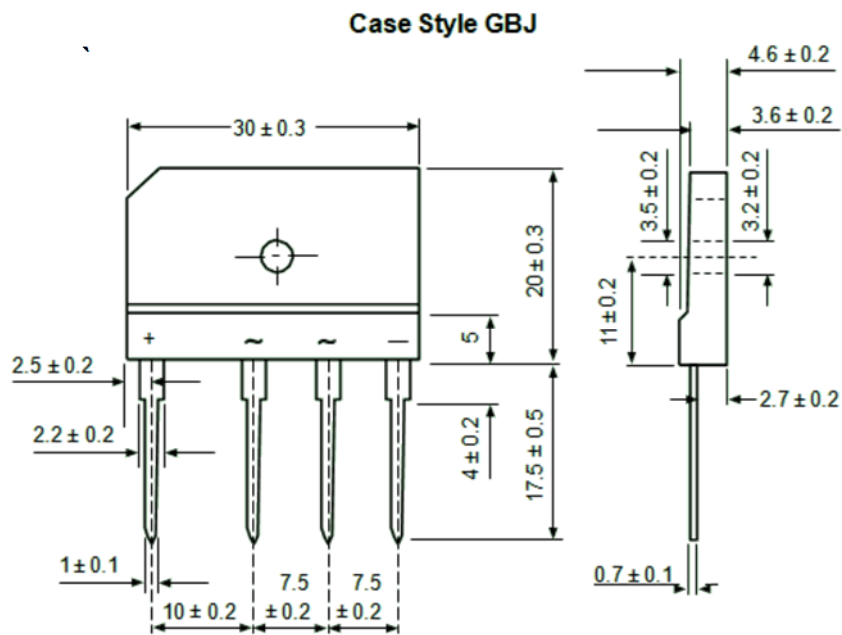


Fig. 4 - Typical Reverse Characteristics Per Diode

**Package outline dimensions**



## Golden SEMI Inc. - Legal Notice

Disclaimer – All data and specifications are subject to changes without notice

GOLDEN SEMI Inc, it's affiliates, agents, distributors and employees neither accept nor assume any responsibility for errors or inaccuracies. All data and specifications are intended for information and provide a product description only. Electrical and mechanical parameters listed in GOLDEN SEMI data sheets and specifications will vary dependent upon application and environmental conditions . GOLDEN SEMI is not liable for any damages occurred or resulting from any circuit, product or end-use application for which it's products are used. GOLDEN SEMI products are not intended or designed for use in life saving or sustaining apparatus and purchase of any GOLDEN SEMI products automatically indemnifies GOLDEN SEMI against any claims or damages resulting from application malfunction