

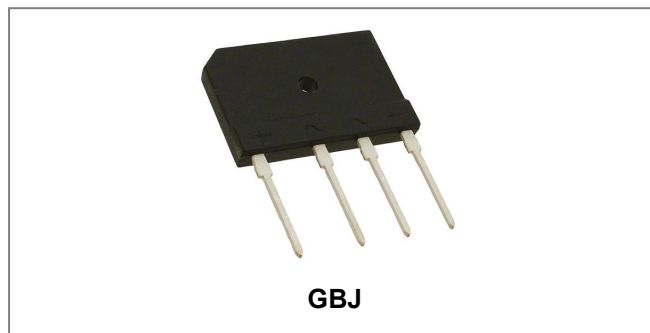


THE DATASHEET OF GBJ15005



GBJ15005-GBJ1510

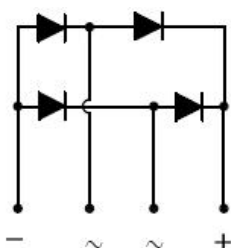
Single-Phase 15.0A Glass Passivated Bridge Rectifier



Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: GBJ, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

| Type Number | Symbol | GBJ 15005 | GBJ 1501 | GBJ 1502 | GBJ 1504 | GBJ 1506 | GBJ 1508 | GBJ 1510 | Units |
|---|------------------------------------|-----------|----------|----------|----------|----------|----------|----------|-------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average forward rectified output current @ $T_A=100^{\circ}\text{C}$ | $I_{(AV)}$ | 15.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 200 | | | | | | | A |

Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

| Type Number | Symbol | GBJ 15005 | GBJ 1501 | GBJ 1502 | GBJ 1504 | GBJ 1506 | GBJ 1508 | GBJ 1510 | Units |
|---|----------|-----------|----------|----------|-------------|----------|----------|----------|---------------|
| Forward Voltage (per element) @ $I_F = 7.5\text{A}$ @ $I_F = 15\text{A}$ | V_F | | | | 1.0 1.1 | | | | V |
| Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^{\circ}\text{C}$ | I_{RM} | | | | 10.0 500 | | | | μA |
| Typical Junction Capacitance(per leg) (Note 1) | C_J | | | | 60 | | | | pF |

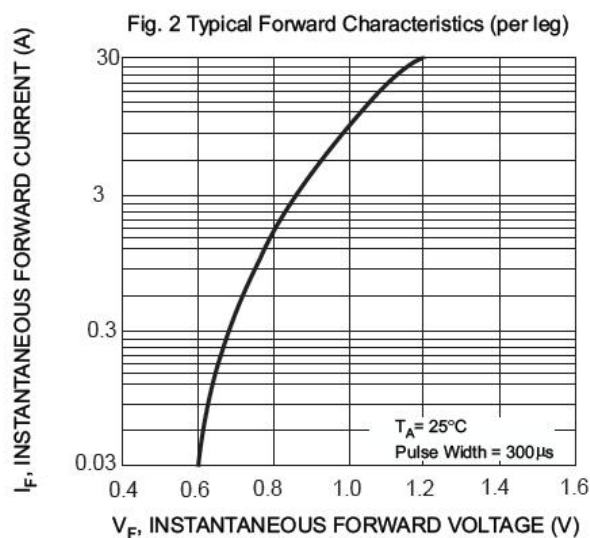
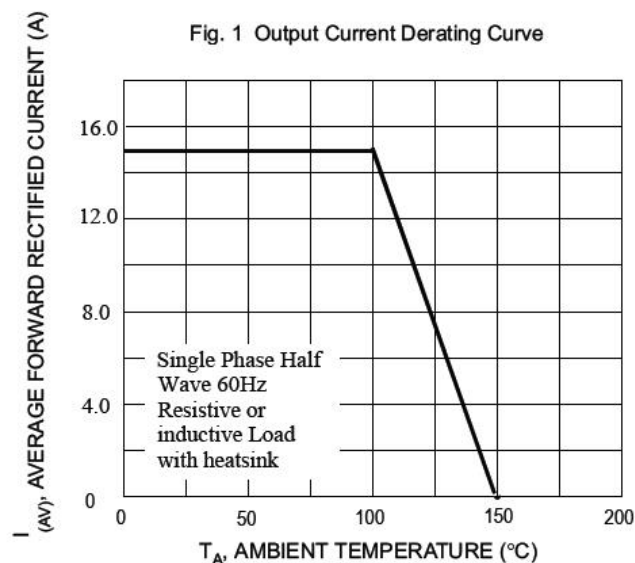
* Pulse width < 300 μs , duty cycle < 2%

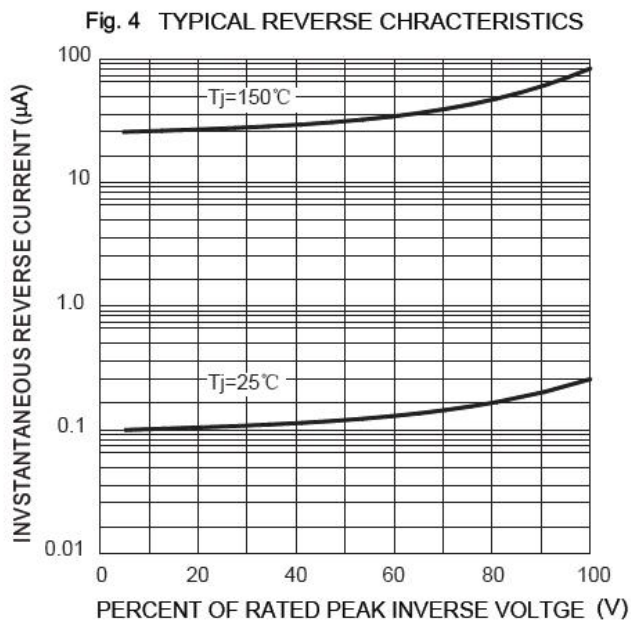
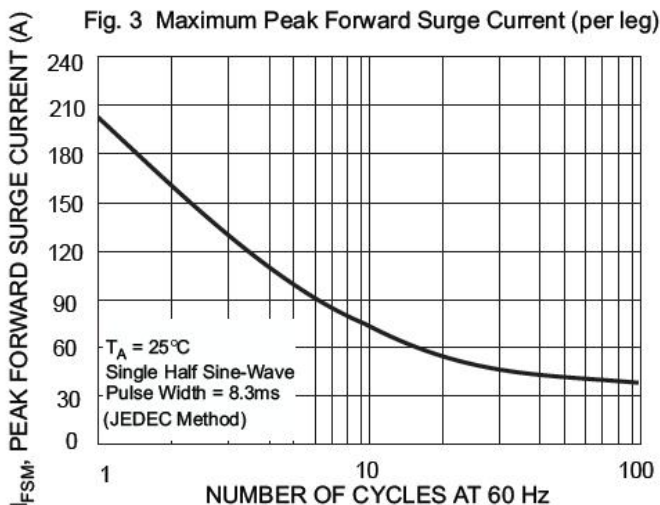
Thermal-Mechanical Specifications:

| Type Number | Symbol | GBJ 15005 | GBJ 1501 | GBJ 1502 | GBJ 1504 | GBJ 1506 | GBJ 1508 | GBJ 1510 | Units |
|---|------------------------------------|-----------|----------|----------|-------------|----------|----------|----------|----------------------|
| Typical Thermal Resistance (per leg) | $R_{\theta JA}$ $R_{\theta JL}$ | | | | 12 1.5 | | | | $^{\circ}\text{C/W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | | | | -55 to +150 | | | | $^{\circ}\text{C}$ |

Note: 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

Ratings and Characteristics Curves



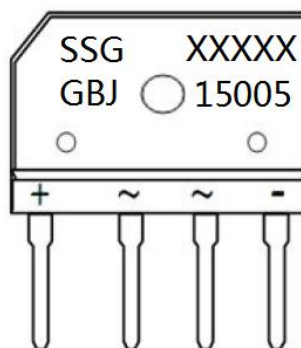


Ordering Information

| Device | Package | Plating | Shipping |
|-----------------------------|--------------|---------|--------------|
| GBJ15005 THRU GBJ1510 | GBJ(Pb-Free) | Pure Sn | 15pcs / tube |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

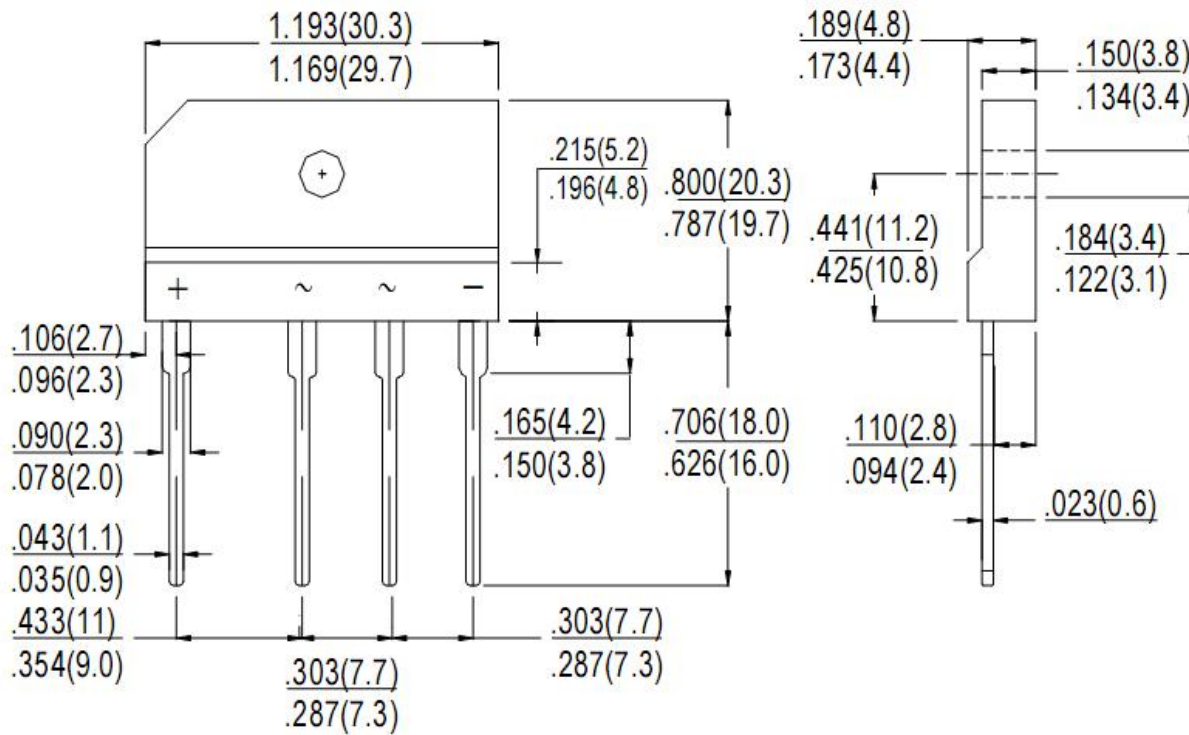


Where XXXXX is YYWWL

- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number
- GBJ15005 = Type Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Mechanical Dimensions GBJ (Inches/Millimeters)





**GBJ15005
THRU
GBJ1510**

**Technical Data
Data Sheet N1794, Rev. C**





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