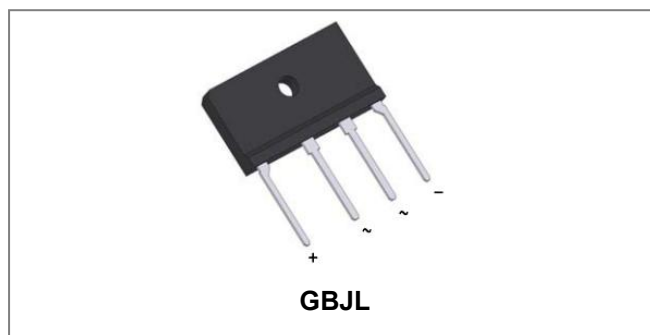


GBJL15J-GBJL15M

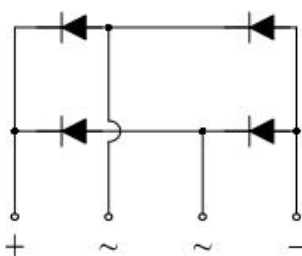
Single-Phase 15.0A Glass Passivated Bridge Rectifier



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: GBJL, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on body
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version
- Mounting Torque: 10cm·kg (8.8inches·lbs) max;
- Recommend Torque: Mounting Torque: 5.7cm·kg (5inches·lbs);

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

| Type Number | Symbol | GBJL15J | GBJL15K | GBJL15M | Units |
|---|------------------------------------|---------|---------|---------|------------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_{DC} | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V_{RMS} | 420 | 560 | 700 | V |
| Average forward rectified output current @ $T_C = 110^{\circ}\text{C}$ | $I_{(AV)}$ | 15.0 | | | A |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 240 | | | A |
| Rating for fusing ($t < 8.3\text{ms}$) | I^2t | 240 | | | A^2sec |

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

| Type Number | Symbol | GBJL15J | GBJL15K | GBJL15M | Units |
|---|----------|----------|---------|---------|---------------|
| Forward Voltage (per element) @ $I_F = 7.5\text{A}$ | V_F | 1.0 | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_{RM} | 5 150 | | | μA |

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

Thermal-Mechanical Specifications:

| Type Number | Symbol | GBJL15J | GBJL15K | GBJL15M | Units |
|---|------------------------------------|-------------|---------|---------|--------------------|
| Typical Thermal Resistance (per leg) | $R_{\theta JA}$ $R_{\theta JL}$ | 22 2.5 | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | $^\circ\text{C}$ |

- Notes: 1. Unit case mounted on Al plate heatsink;
2. Units mounted on PCB without heatsink;
3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.

Ratings and Characteristics Curves

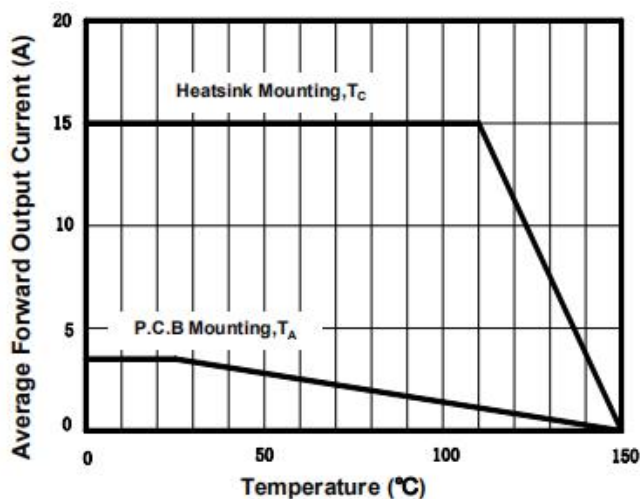


Figure 1. Derating Curve Output Rectified Current

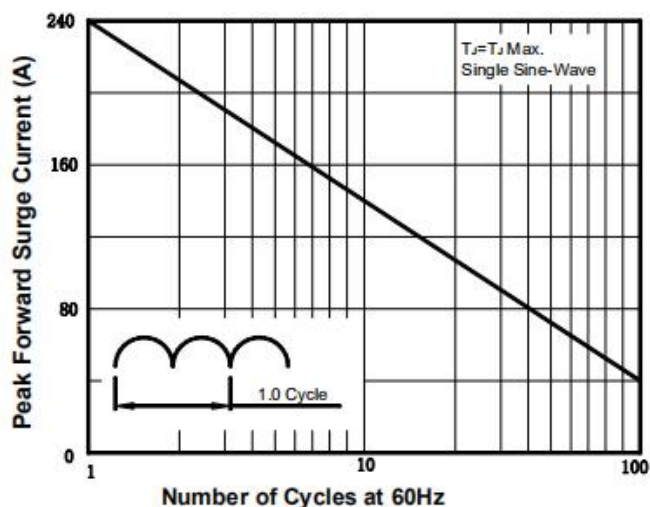


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current per Diode

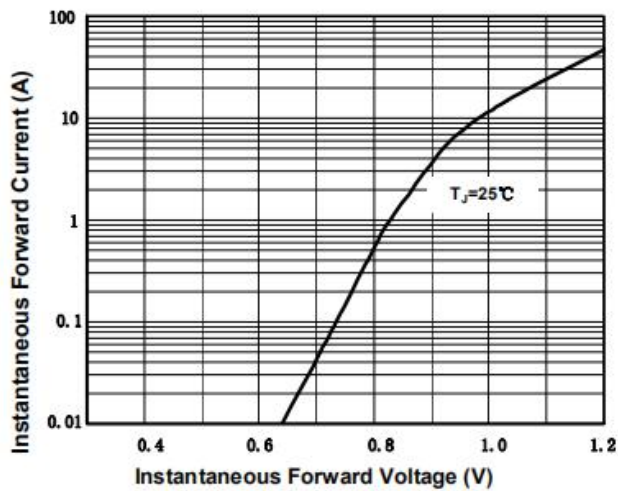


Figure 3. Typical Forward Characteristics Per Diode

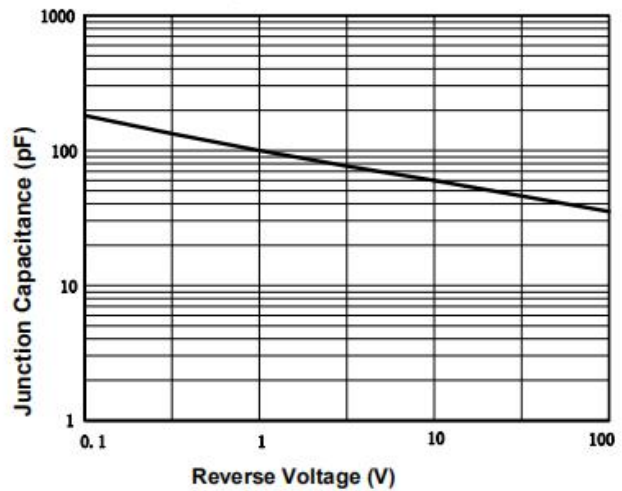


Figure 4. Typical Junction Capacitance Per Diode

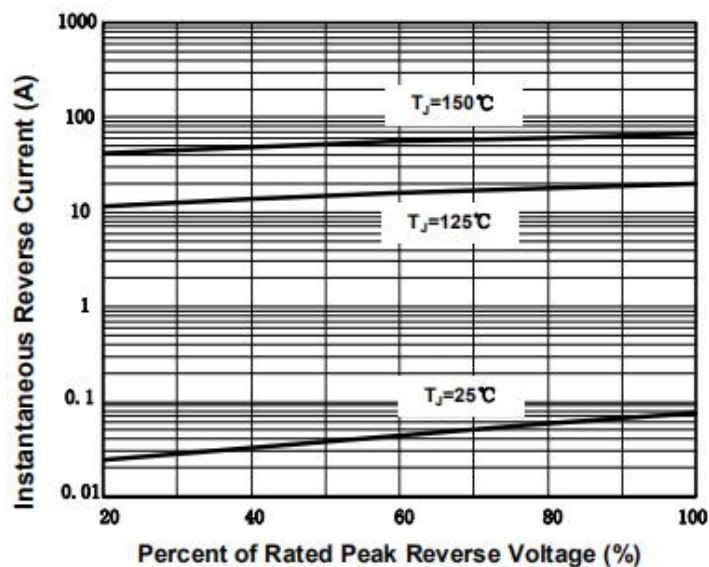


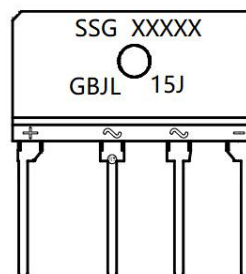
Figure 5. Typical Reverse Characteristics Per Diode

Ordering Information

| Device | Package | Plating | Shipping |
|----------------------------|---------------|---------|--------------|
| GBJL15J THRU GBJL15M | GBJL(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

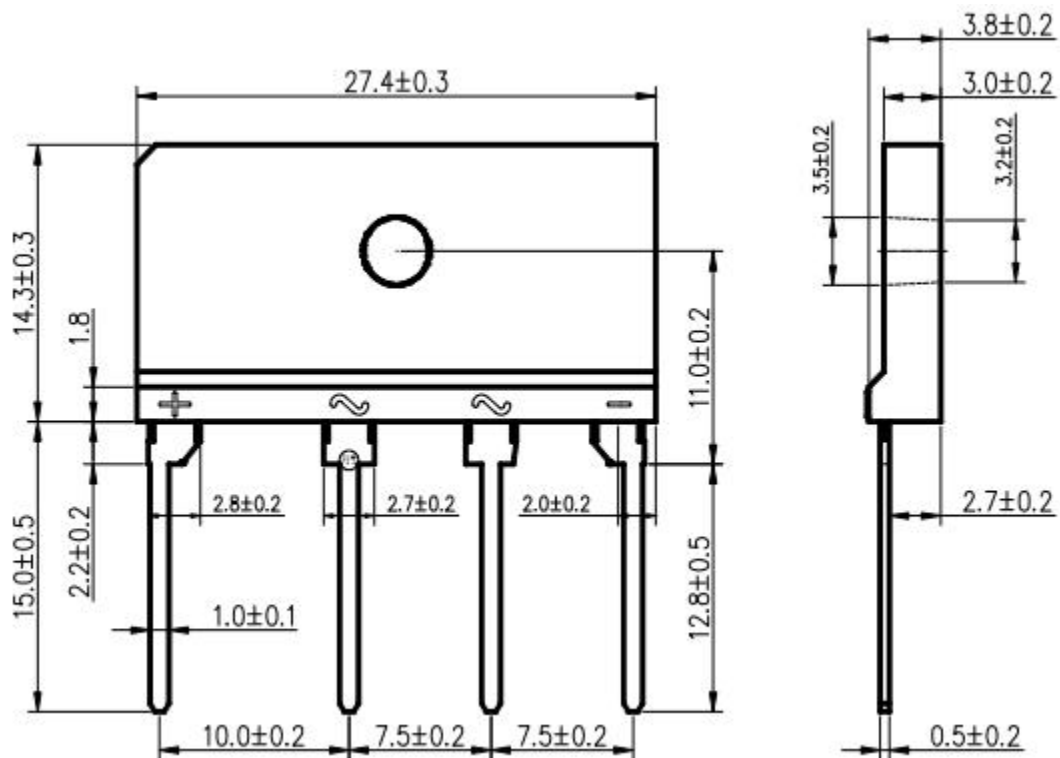


Where XXXXX is YYWWL

SSG = SSG
YY = Year
WW = Week
L = Lot Number
GBJL15J = Type Number

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

Mechanical Dimensions GBJL (Millimeters)



DISCLAIMER:

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- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
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