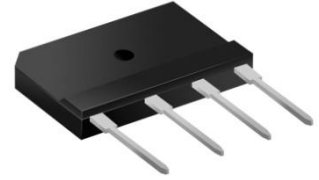


## Silicon Bridge Rectifiers

## GBJ25JL

### Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High soldering temperature guaranteed: 260°C @ 10s
- RoHS compliant with Halogen-free



### Mechanical Data

- Case: GBJ molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Leads solderable per MIL-STD-750

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

| Parameter                                               |                        | Symbol            | GBJ25JL | Unit             |
|---------------------------------------------------------|------------------------|-------------------|---------|------------------|
| Peak Repetitive Reverse Voltage                         |                        | V <sub>RRM</sub>  | 600     | V                |
| RMS Reverse Voltage                                     |                        | V <sub>RMS</sub>  | 420     | V                |
| DC Blocking Voltage                                     |                        | V <sub>DC</sub>   | 600     | V                |
| Average Forward Output Current                          |                        | I <sub>F_AV</sub> | 25      | A                |
| Peak Forward Surge Current, 8.3ms Single half-sine-wave | @T <sub>J</sub> = 25°C | I <sub>FSM</sub>  | 550     | A                |
| I <sup>2</sup> t Rating for Fusing                      | @T <sub>J</sub> = 25°C | I <sup>2</sup> t  | 1255    | A <sup>2</sup> s |

### Thermal Characteristics

| Parameter                            | Symbol              | GBJ25JL    | Unit |
|--------------------------------------|---------------------|------------|------|
| Typical Thermal Resistance*1, *2     | R <sub>θJA</sub> *2 | 25.2       | °C/W |
|                                      | R <sub>θJC</sub> *1 | 1.5        |      |
| Operating Junction Temperature Range | T <sub>J</sub>      | -55 ~ +150 | °C   |
| Storage Temperature Range            | T <sub>STG</sub>    | -55 ~ +150 | °C   |

Note \*1: Unit mounted on p.c.b. of 65mm x 50mm x 2.4mm with aluminum plate heat sink

Note \*2: Unit mounted on p.c.b. without heat sink

## Silicon Bridge Rectifiers

**GBJ25JL**

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

| Parameter                     | Symbol | Test conditions                 |                           | Typ. | Max. | Unit          |
|-------------------------------|--------|---------------------------------|---------------------------|------|------|---------------|
| Instantaneous Forward Voltage | $V_F$  | $I_F=12.5\text{A}$<br>Per Diode | @ $T_A=25^\circ\text{C}$  | 0.90 | 0.92 | V             |
|                               |        | $I_F=25\text{A}$<br>Per Diode   | @ $T_A=25^\circ\text{C}$  | 0.95 | 0.98 |               |
| Reverse current               | $I_R$  | Rated $V_R$ ,<br>Per Diode      | @ $T_A=25^\circ\text{C}$  | -    | 2.0  | $\mu\text{A}$ |
|                               |        |                                 | @ $T_A=150^\circ\text{C}$ | -    | 300  |               |

# Silicon Bridge Rectifiers

GBJ25JL

## Ratings and Characteristic Curves (@T<sub>A</sub>=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

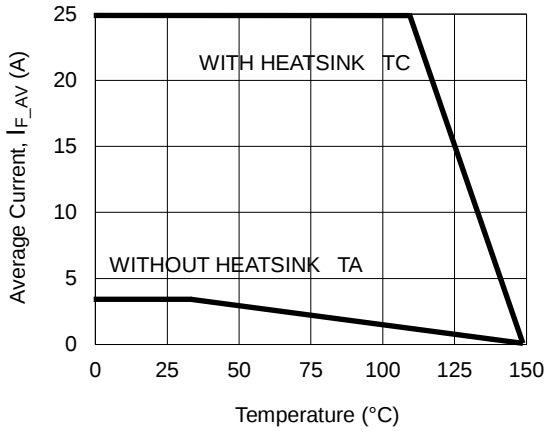


Fig.2 Surge Current Derating Curve

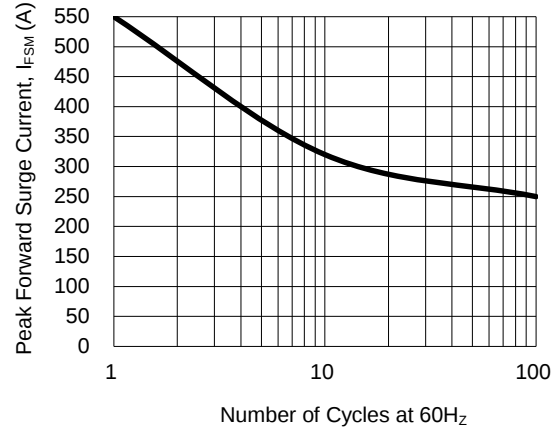


Fig.3 Typical Forward Voltage Characteristic

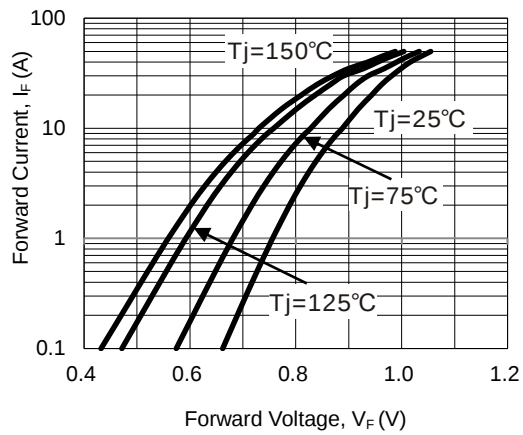
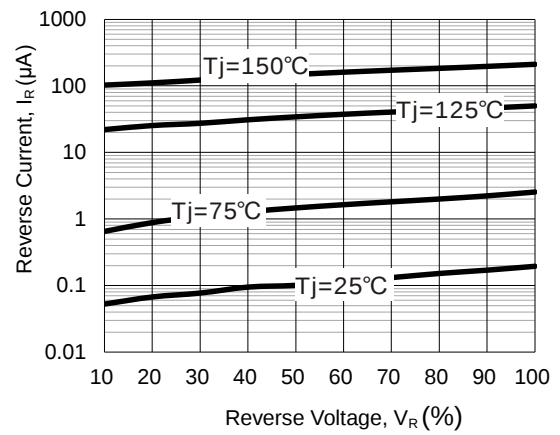


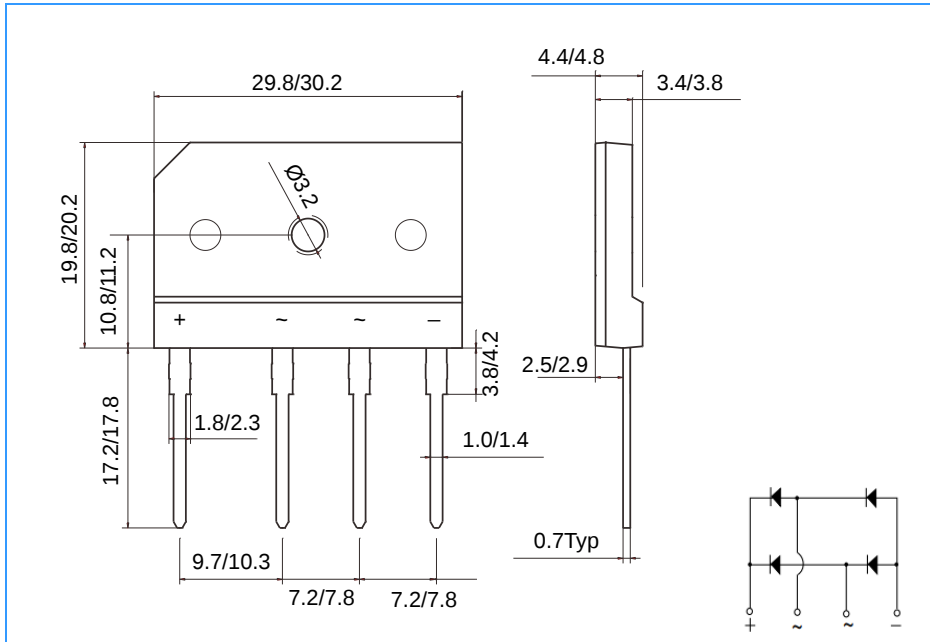
Fig.4 Typical Reverse Characteristic



## Silicon Bridge Rectifiers

**GBJ25JL**

### Package Outline Dimensions (unit: mm)



### Ordering Information

| Part Number | Marking | Package |
|-------------|---------|---------|
| GBJ25JL     | GBJ25JL | GBJ     |