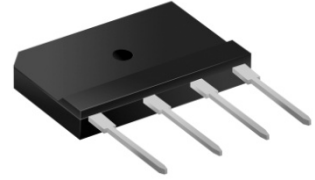


SuperPlanar™ Bridge Rectifiers

GBJ25J--GBJ25K

Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed:260°C/10 seconds
- RoHS Compliant



Mechanical Data

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

Maximum Ratings (@T_A = 25°C unless otherwise specified)

| Characteristic | | Symbol | GBJ25J | GBJ25K | Units |
|--|------------------------|--------------------|--------|--------|------------------|
| Peak repetitive reverse voltage | | V _{RRM} | 600 | 800 | V |
| RMS reverse voltage | | V _{RMS} | 420 | 560 | V |
| DC blocking voltage | | V _{DC} | 600 | 800 | V |
| Maximum average forward output current | | I _{F(AV)} | 25 | | A |
| Peak forward surge current, 8.3ms single half-sine-wave | @T _J = 25°C | I _{FSM} | 300 | | A |
| I ² t Rating for fusing | @T _J = 25°C | I ² t | 373 | | A ² s |

Thermal Characteristics

| Parameter | Symbol | GBJ25J | GBJ25K | Units |
|--|----------------------|-----------------|--------|-------|
| Typical thermal resistance (Note 1,Note2) | R _{ΘJA} (2) | 25.2 | | °C /W |
| | R _{ΘJC} (1) | 1.5 | | |
| Operating junction temperature range | T _J | - 55 ---- + 150 | | °C |
| Storage temperature range | T _{STG} | - 55 ---- + 150 | | °C |

Note:

(1) Unit case mounted on 65mm x 50mm x2.4mm aluminum plate heatsink

(2) Units mounted on PCB without heatsink

SuperPlanar™ Bridge Rectifiers**GBJ25J--GBJ25K****Electrical Characteristics** (@T_A = 25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | | Typ. | Max. | Units |
|---------------------------------------|----------------|-------------------------------------|------------------------|------|------|-------|
| Maximum instantaneous forward voltage | V _F | I _F =12.5A Per Diode | | 0.94 | 0.98 | V |
| | | I _F =25A Per Diode | | 0.99 | 1.1 | |
| Maximum Reverse current | I _R | Rated V _R , Per Diode | @T _A =25°C | 0.2 | 2 | μ A |
| | | | @T _A =150°C | 60 | 150 | |

SuperPlanar™ Bridge Rectifiers

GBJ25J--GBJ25K

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

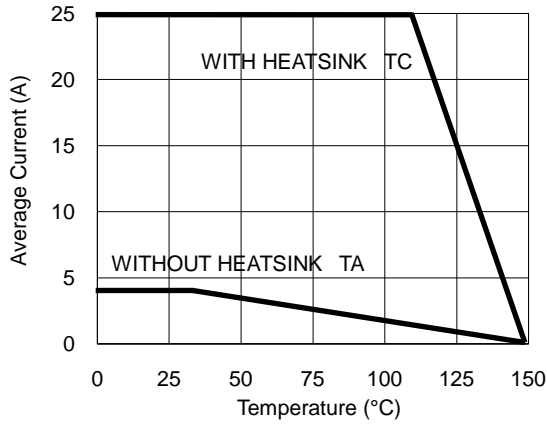


Fig.2- Surge Current Derating Curve

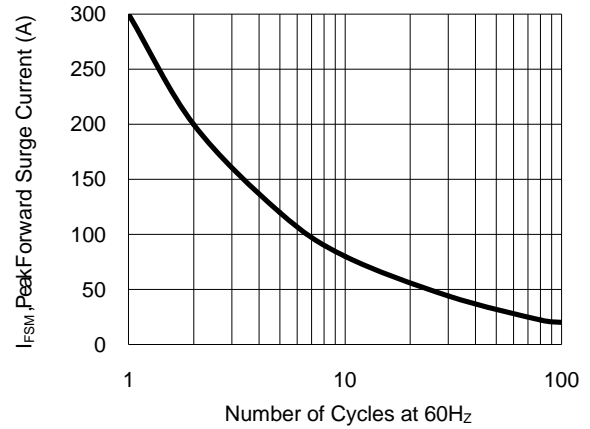


Fig.3- Typical Forward Voltage Characteristic

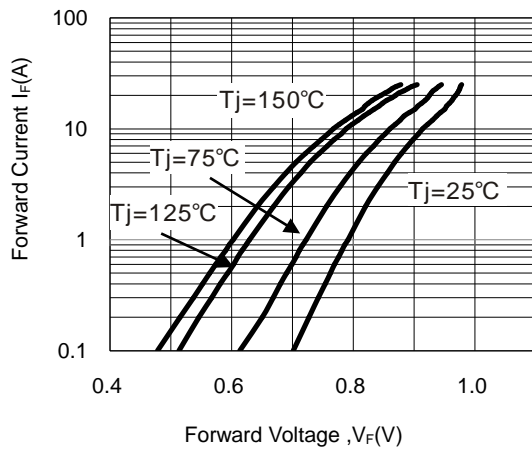
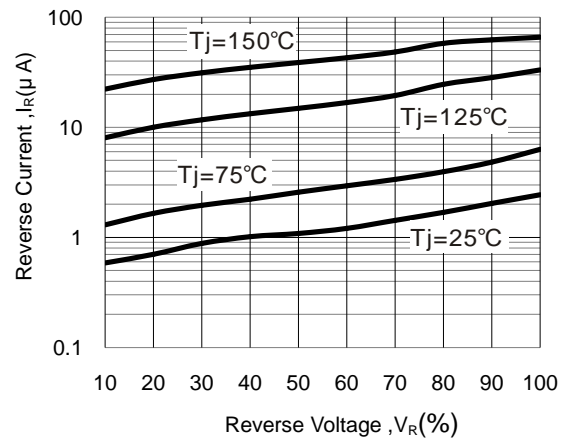


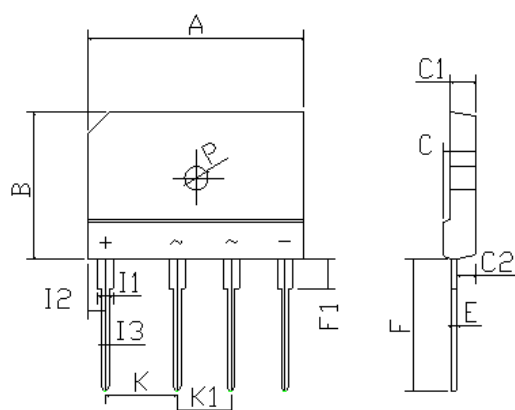
Fig.4- Typical Reverse Characteristic



SuperPlanar™ Bridge Rectifiers

GBJ25J--GBJ25K

Package Outline Dimensions(unit:mm)



| GBJ | | |
|----------------------|-------------|------|
| Dim | Min | Max |
| A | 29.8 | 30.2 |
| B | 19.8 | 20.2 |
| C | 4.4 | 4.8 |
| C1 | 3.4 | 3.8 |
| C2 | 2.5 | 2.9 |
| E | 0.7typ | |
| F | 17.2 | 17.8 |
| F1 | 3.8 | 4.2 |
| I1 | 1.8 | 2.3 |
| I2 | 2.2 | 2.8 |
| I3 | 1 | 1.4 |
| K | 9.7 | 10.3 |
| K1 | 7.2 | 7.8 |
| P | Ø3.2Typical | |
| All Dimensions in mm | | |

Ordering Information

| Part No. | Marking | Package | Shipping |
|----------|---------|---------|--------------|
| GBJ25J | GBJ25J | GBJ | 500/unit&Box |
| GBJ25K | GBJ25K | GBJ | 500/unit&Box |