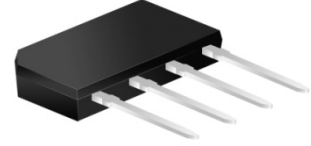


SuperPlanar™ Bridge Rectifiers

GBL3J--GBL3K

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: GBL 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 | GBL3J | GBL3K | 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)} | 3.0 | | A |
| Peak forward surge current, 8.3ms single half-sine-wave | @T _J = 25°C I _{FSM} | 90 | | A |
| I ² t Rating for fusing | @T _J = 25°C I ² t | 33.6 | | A ² s |

Thermal Characteristics

| Parameter | Symbol | GBL3J | GBL3K | Units |
|--|------------------|-----------------|-------|-------|
| Typical thermal resistance per leg (Note 1) | R _{θJA} | 36 | | °C/W |
| | R _{θJC} | 8 | | |
| Operating junction temperature range | T _J | - 55 ---- + 150 | | °C |
| Storage temperature range | T _{STG} | - 55 ---- + 150 | | °C |

Note:

- (1) Units mounted on PCB without heatsink

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Electrical Characteristics (@T_A = 25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Typ. | Max. | Units | |
|---------------------------------------|----------------|-------------------------------------|------------------------|------|-------|----|
| Maximum instantaneous forward voltage | V _F | I _F =1.5A Per Diode | 0.91 | 0.95 | V | |
| | | I _F =3.0A Per Diode | 0.95 | 1.0 | | |
| Maximum Reverse current | I _R | Rated V _R , Per Diode | @T _A =25°C | 0.1 | 1.0 | μA |
| | | | @T _A =150°C | 20 | 80 | |

SuperPlanar™ Bridge Rectifiers

GBL3J--GBL3K

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

Fig.1-Forward Current Derating Curve

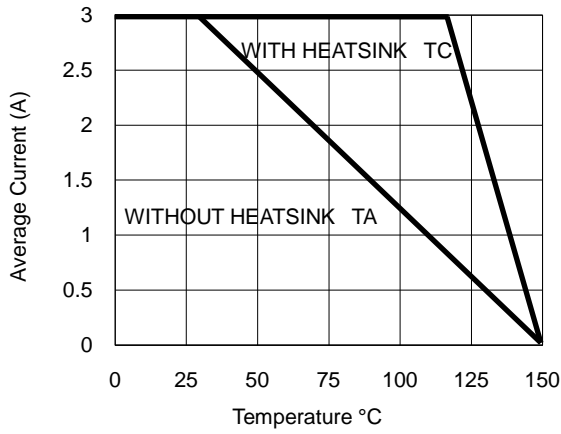


Fig.2- Surge Current Derating Curve

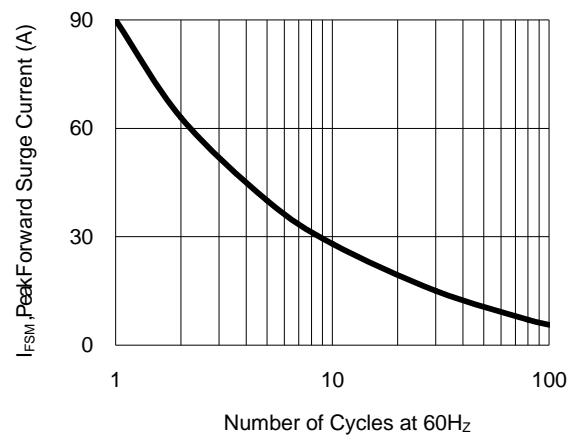


Fig.3- Typical Forward Voltage Characteristic

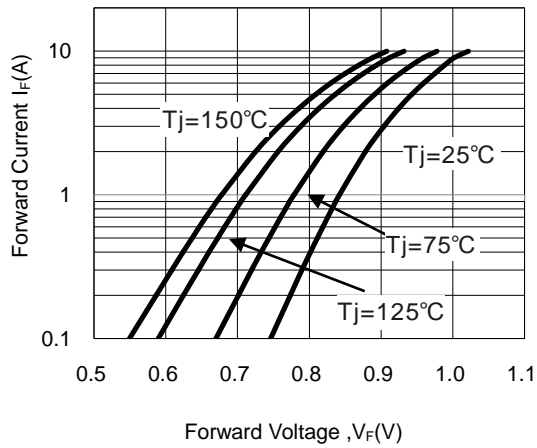
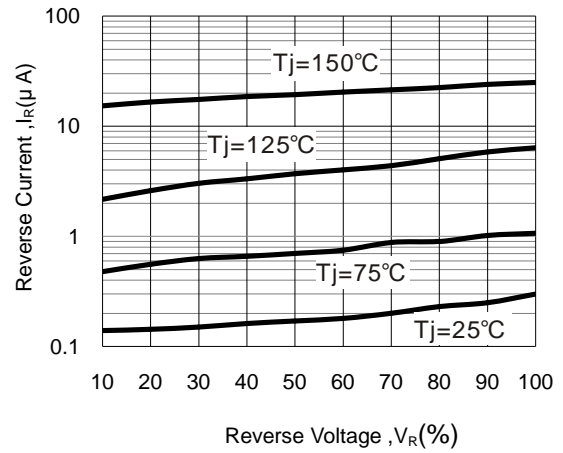


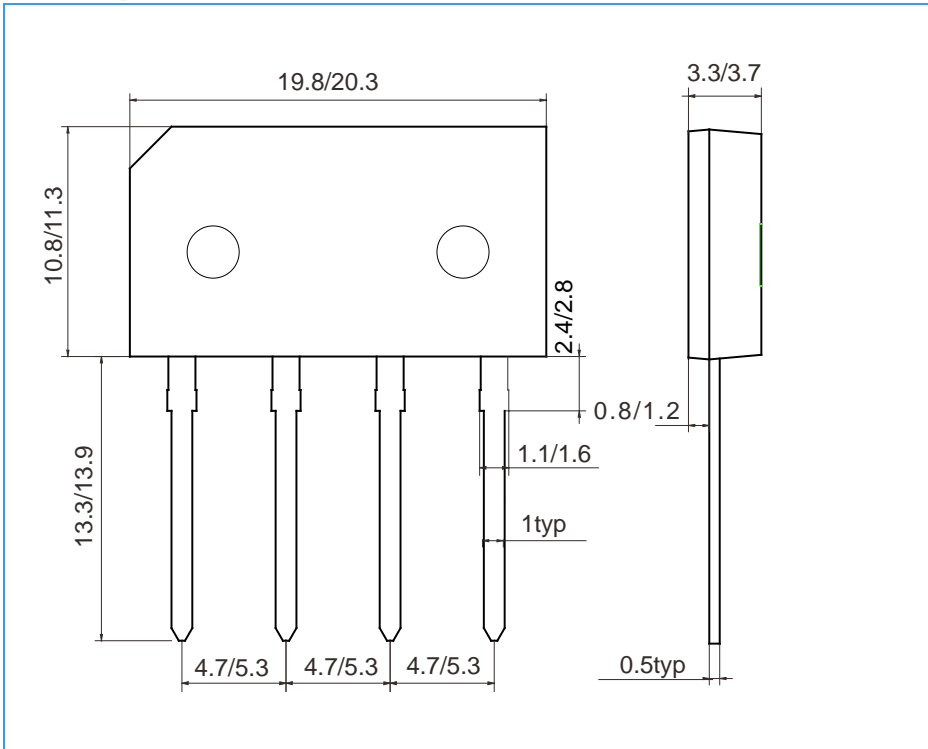
Fig.4- Typical Reverse Characteristic



SuperPlanar™ Bridge Rectifiers

GBL3J--GBL3K

Package Outline Dimensions(unit:mm)



Ordering Information

| Part No. | Marking | Package |
|----------|---------|---------|
| GBL3J | GBL3J | GBL |
| GBL3K | GBL3K | GBL |