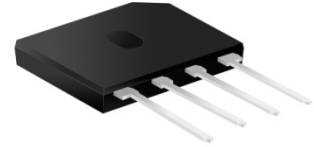


SuperPlanar™ Bridge Rectifiers

GBU4J--GBU4K

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: GBU 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 | GBU4J | GBU4K | 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)} | 4.0 | | A |
| Peak forward surge current, 8.3ms single half-sine-wave | @T _J = 25°C I _{FSM} | 135 | | A |
| I ² t Rating for fusing | @T _J = 25°C I ² t | 76 | | A ² s |

Thermal Characteristics

| Parameter | Symbol | GBU4J | GBU4K | Units |
|--|----------------------|-----------------|-------|-------|
| Typical thermal resistance per leg (Note 1,Note2) | R _{θJA} (2) | 35 | | °C /W |
| | R _{θJC} (1) | 4.2 | | |
| 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

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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 =2.0A Per Diode | 0.91 | 0.95 | V | |
| | | I _F =4.0A Per Diode | 0.94 | 1 | | |
| Maximum Reverse current | I _R | Rated V _R , Per Diode | @T _A =25°C | 0.2 | 1 | μA |
| | | | @T _A =150°C | 30 | 100 | |

SuperPlanar™ Bridge Rectifiers

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

Fig.1-Forward Current Derating Curve

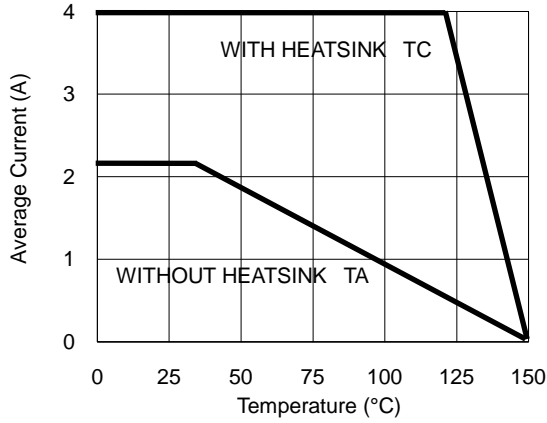


Fig.2- Surge Current Derating Curve

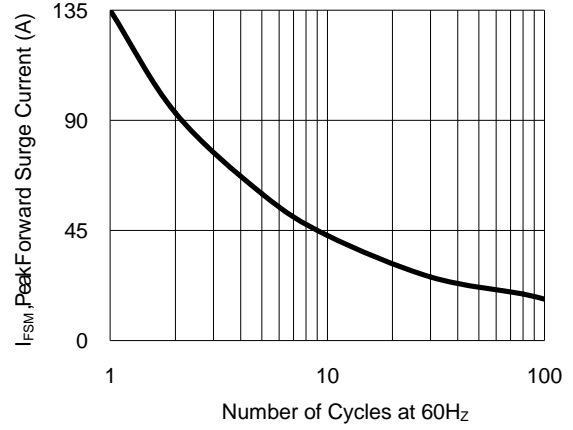


Fig.3- Typical Forward Voltage Characteristic

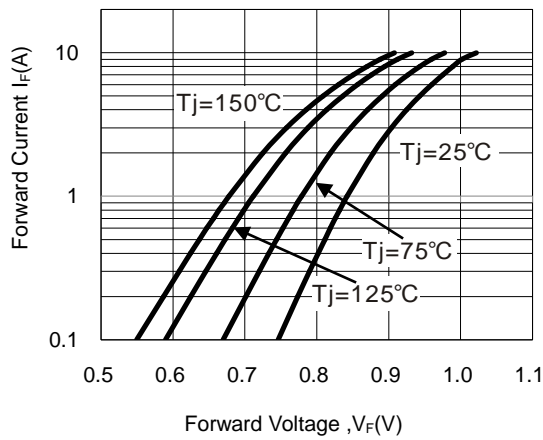
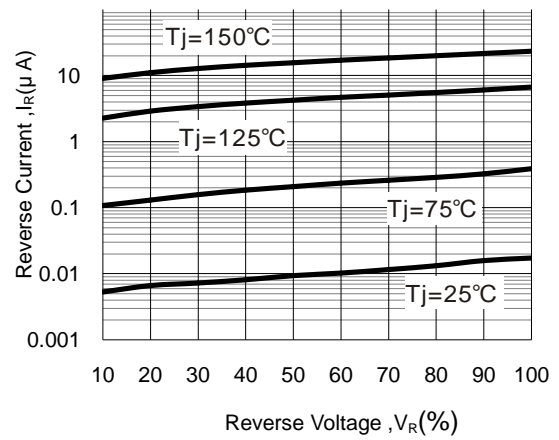


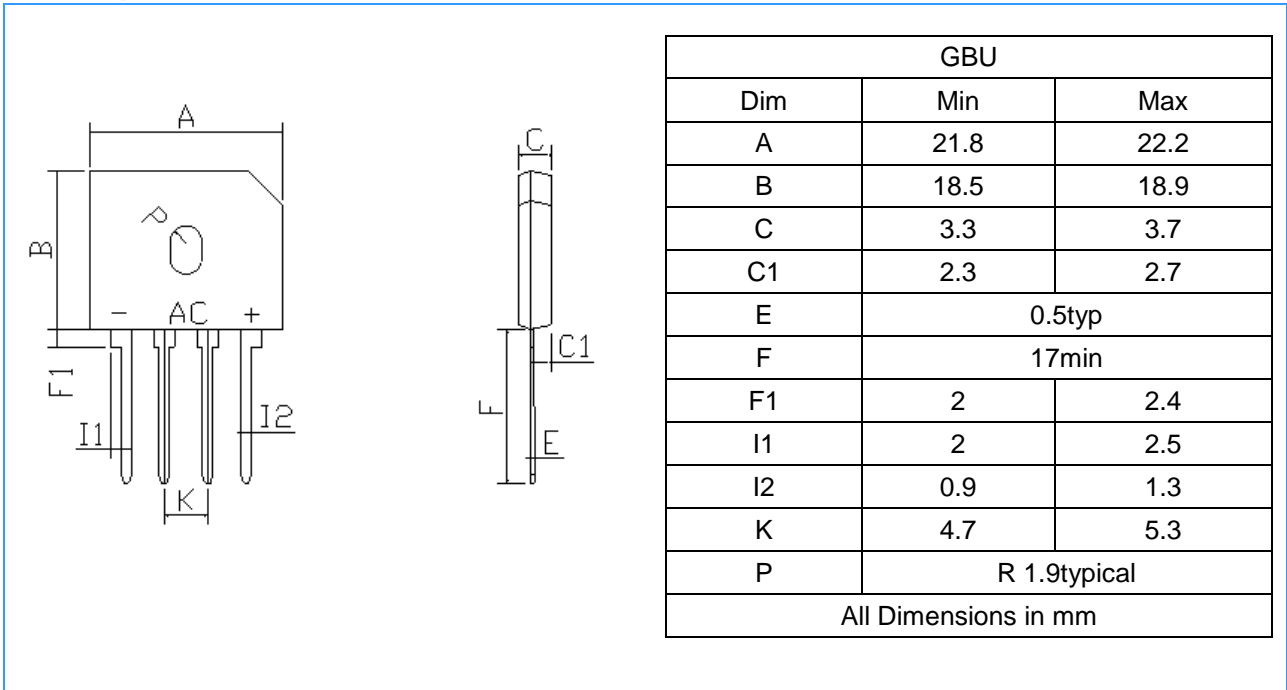
Fig.4- Typical Reverse Characteristic



SuperPlanar™ Bridge Rectifiers

GBU4J--GBU4K

Package Outline Dimensions(unit:mm)



Ordering Information

| Part No. | Marking | Package | Shipping |
|----------|---------|---------|--------------|
| GBU4J | GBU4J | GBU | 500/unit&Box |
| GBU4K | GBU4K | GBU | 500/unit&Box |