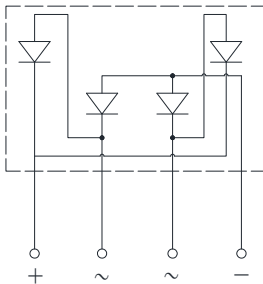
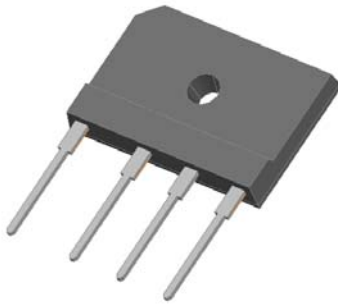


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** 6KBJ
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GBJ25005 | GBJ2501 | GBJ2502 | GBJ2504 | GBJ2506 | GBJ2508 | GBJ2510 |
|--|------------------------------|-------|------------|---------|---------|---------|---------|---------|---------|
| Device marking code | | | GBJ25005 | GBJ2501 | GBJ2502 | GBJ2504 | GBJ2506 | GBJ2508 | GBJ2510 |
| Maximum Repetitive Peak Reverse Voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | VRMS | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | VDC | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, | With heatsink Tc =100°C | IO | A | 25.0 | | | | | |
| | Without heatsink Ta =25°C | | | 4.0 | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C | IFSM | A | 320 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | | 640 | | | | | | |
| Current squared time @1ms≤t<8.3ms Tj=25°C, Rating of per diode | I²t | A²s | 425 | | | | | | |
| Storage temperature | Tstg | °C | -55 ~ +150 | | | | | | |
| Junction temperature | Tj | °C | -55 ~ +150 | | | | | | |
| Dielectric strength @ Terminals to case, AC 1 minute | Vdis | KV | 2.5 | | | | | | |
| Mounting torque @Recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |



GBJ25005 THRU GBJ2510

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBJ25005 | GBJ2501 | GBJ2502 | GBJ2504 | GBJ2506 | GBJ2508 | GBJ2510 |
|---|----------------|------|---|----------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=12.5A | | | | | | | 1.0 |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _R | μA | T _j =25°C | | | | | | | 5 |
| | | | T _j =125°C | | | | | | | 100 |
| Typical junction capacitance | C _j | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | | | | | | | 100 |

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

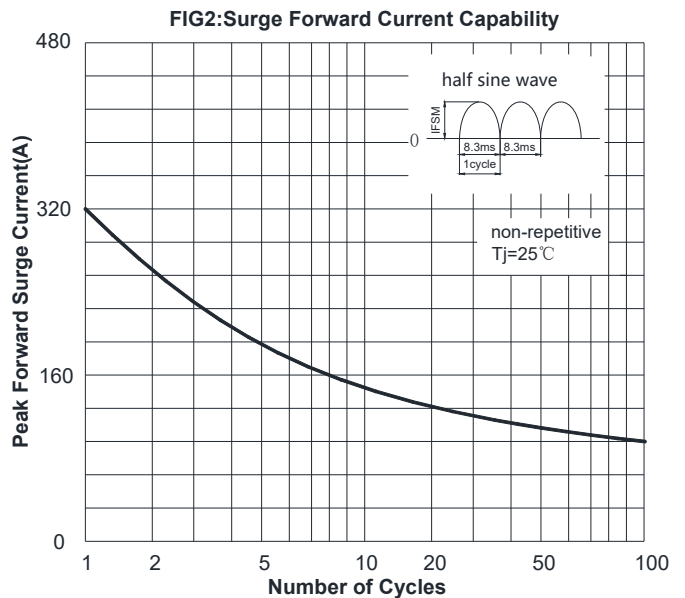
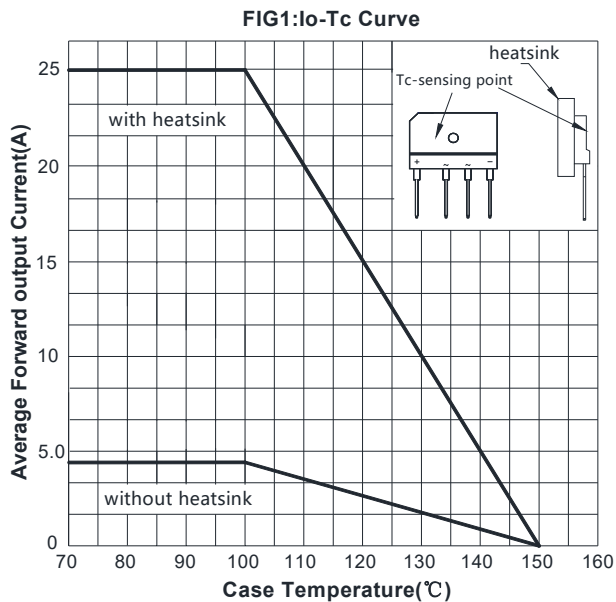
| PARAMETER | SYMBOL | UNIT | GBJ25005 | GBJ2501 | GBJ2502 | GBJ2504 | GBJ2506 | GBJ2508 | GBJ2510 | |
|--------------------|--|-------------------|----------|---------|---------|---------|---------|---------|---------|------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R _{θJ-A} | °C/W | | | | | | | 18.0 |
| | Between junction and case, With heatsink | R _{θJ-C} | | | | | | | | 1.0 |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| GBJ25005 THRU GBJ2510 | B1 | Approximate 6.5 | 15 | 750 | 1500 | TUBE |

■ Characteristics(Typical)





GBJ25005 THRU GBJ2510

FIG3: Typical Forward Voltage

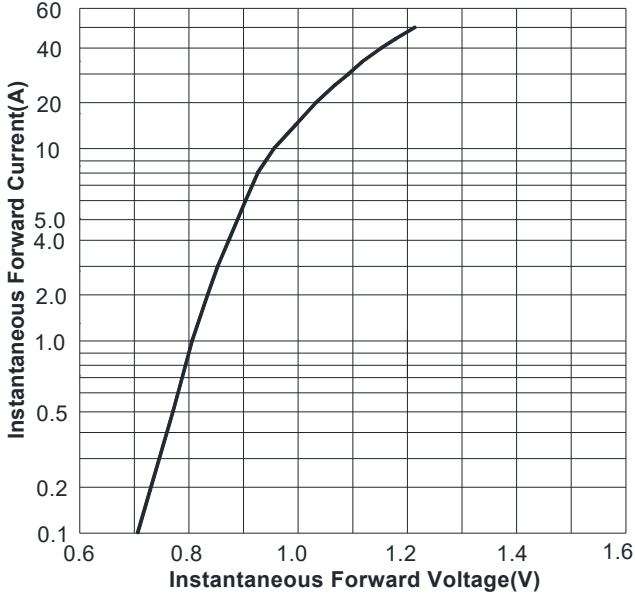
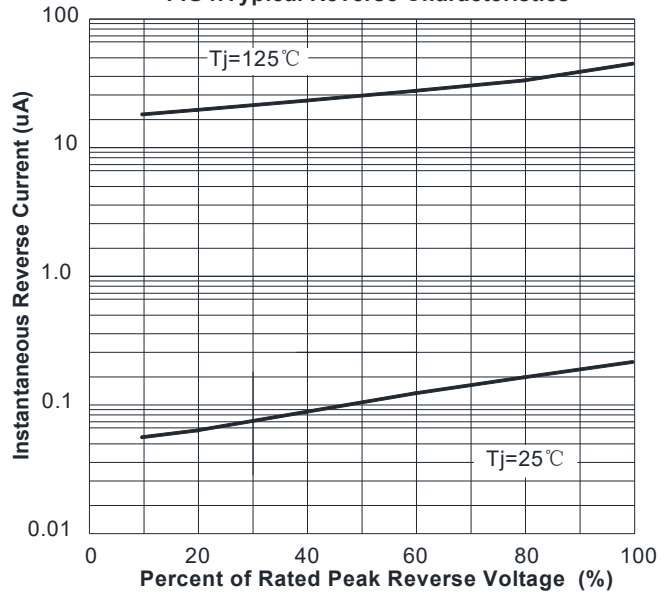
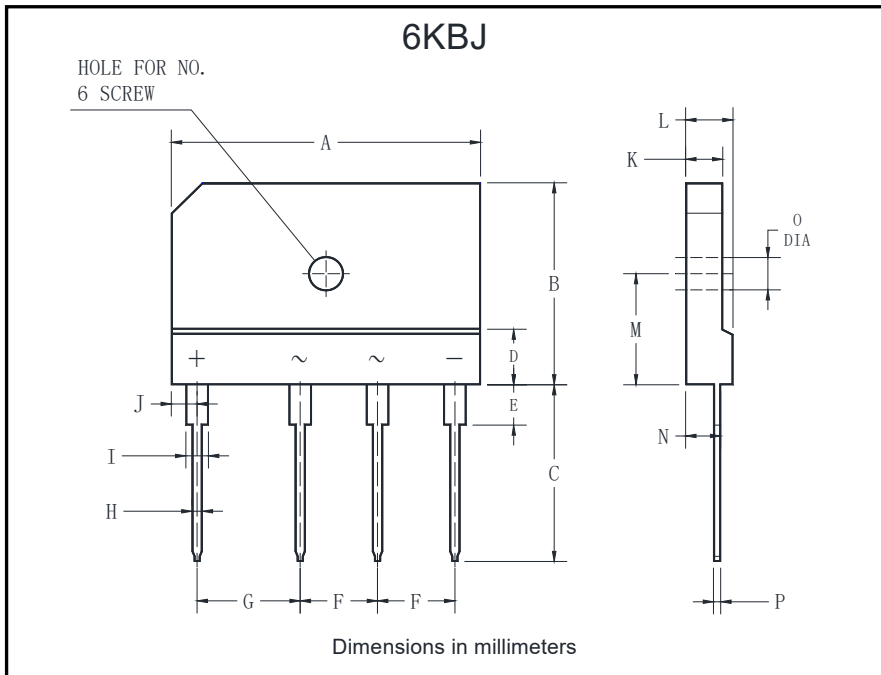


FIG4: Typical Reverse Characteristics



Outline Dimensions



| 6KBJ | | |
|------|------|------|
| Dim | Min | Max |
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | 17.0 | 18.0 |
| D | 4.8 | 5.8 |
| E | 3.8 | 4.2 |
| F | 7.3 | 7.7 |
| G | 9.8 | 10.2 |
| H | 0.9 | 1.1 |
| I | 2.0 | 2.4 |
| J | 2.3 | 2.7 |
| K | 3.4 | 3.8 |
| L | 4.4 | 4.8 |
| M | 10.8 | 11.2 |
| N | 3.1 | 3.7 |
| O | 3.1 | 3.4 |
| P | 0.6 | 0.8 |



GBJ25005 THRU GBJ2510

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