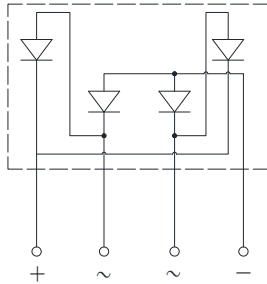
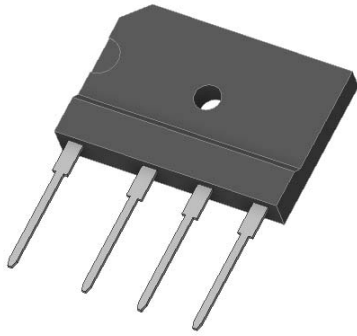


Bridge Rectifiers



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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GBJ10AA | GBJ10BA | GBJ10DA | GBJ10GA | GBJ10JA | GBJ10KA | GBJ10MA |
|--|--|------------------|------------|---------|---------|---------|---------|---------|---------|
| Device marking code | | | GBJ10AA | GBJ10BA | GBJ10DA | GBJ10GA | GBJ10JA | GBJ10KA | GBJ10MA |
| 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 $T_c = 120^\circ\text{C}$ | IO | A | 10.0 | | | | | |
| | Without heatsink $T_a = 25^\circ\text{C}$ | | | 3.5 | | | | | |
| Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, $T_j = 25^\circ\text{C}$ | IFSM | A | 250 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j = 25^\circ\text{C}$ | | | 500 | | | | | | |
| Current squared time @1ms ≤ t ≤ 8.3ms $T_j = 25^\circ\text{C}$, Rating of per diode | I ² t | A ² S | 259 | | | | | | |
| Storage temperature | T _{stg} | °C | -55 ~ +150 | | | | | | |
| Junction temperature | T _j | °C | -55 ~ +150 | | | | | | |
| Dielectric strength @ Terminals to case, AC 1 minute | V _{dis} | KV | 2.5 | | | | | | |
| Mounting torque @Recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |



GBJ10AA THRU GBJ10MA

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBJ10AA | GBJ10BA | GBJ10DA | GBJ10GA | GBJ10JA | GBJ10KA | GBJ10MA |
|---|----------------|------|---|---------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =5.0A | | | | 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 | | | | 64 | | | |

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

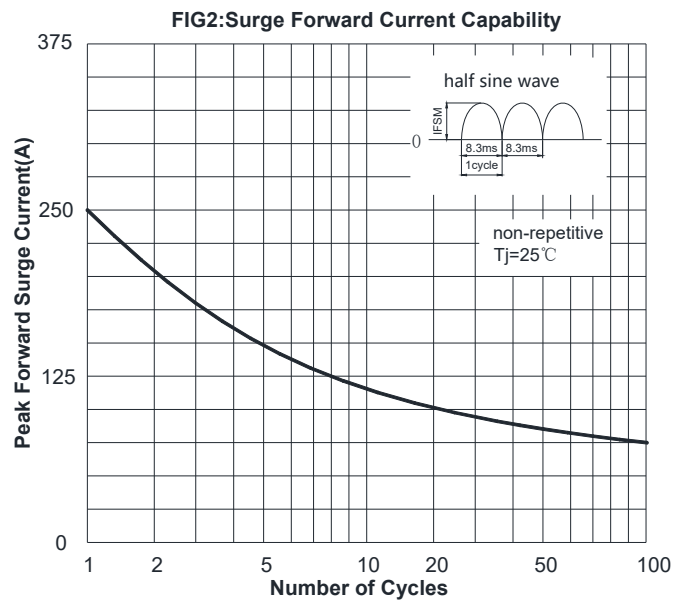
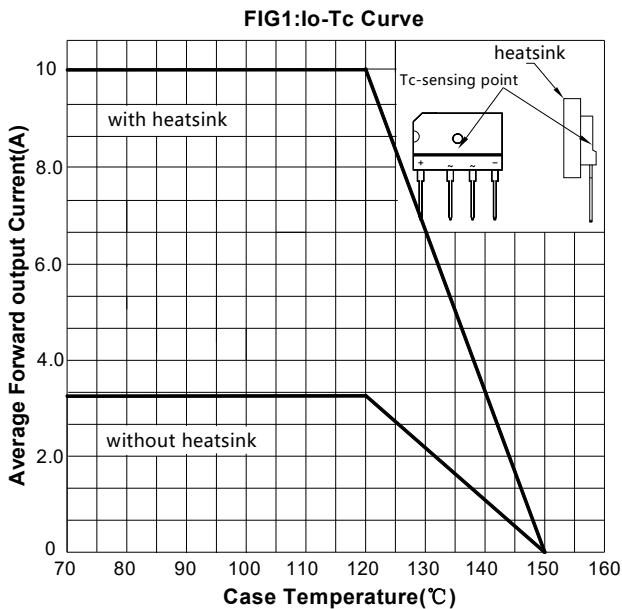
| PARAMETER | | SYMBOL | UNIT | GBJ10AA | GBJ10BA | GBJ10DA | GBJ10GA | GBJ10JA | GBJ10KA | GBJ10MA |
|--------------------|--|-------------------|------|---------|---------|---------|---------|---------|---------|---------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R _{θJ-A} | °C/W | | | | 18 | | | |
| | Between junction and case, With heatsink | R _{θJ-C} | | | | | 1.5 | | | |

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 |
|----------------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| GBJ10AA THRU GBJ10MA | B1 | Approximate 6.5 | 15 | 750 | 1500 | TUBE |

■ Characteristics(Typical)





GBJ10AA THRU GBJ10MA

FIG3: Typical Forward Voltage

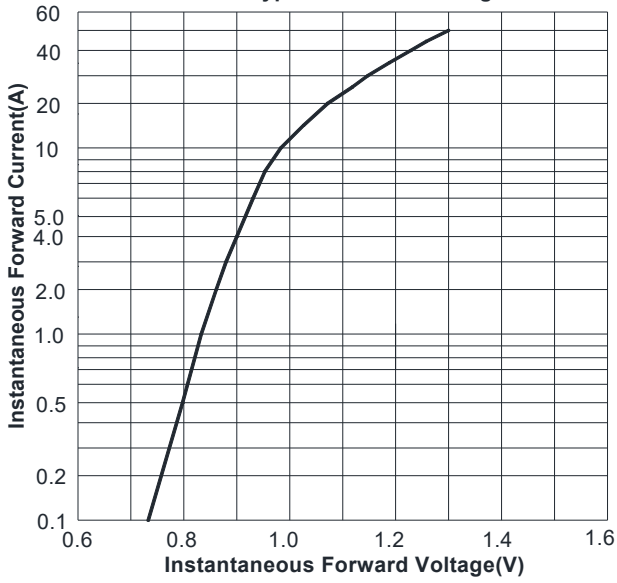
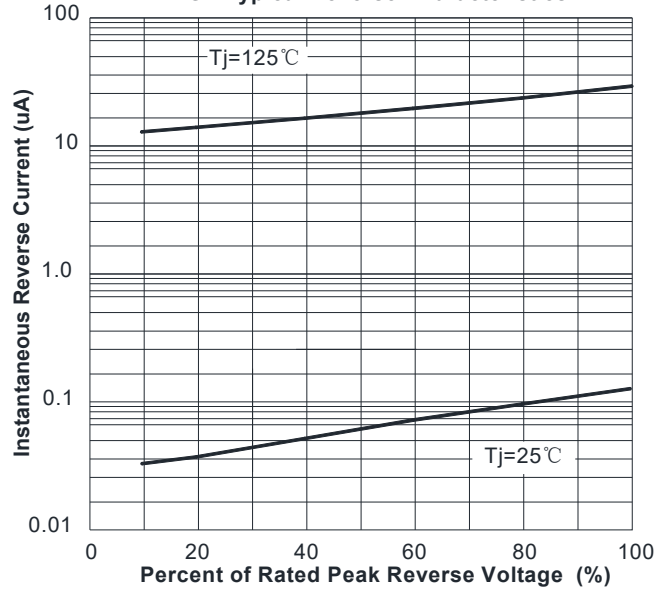
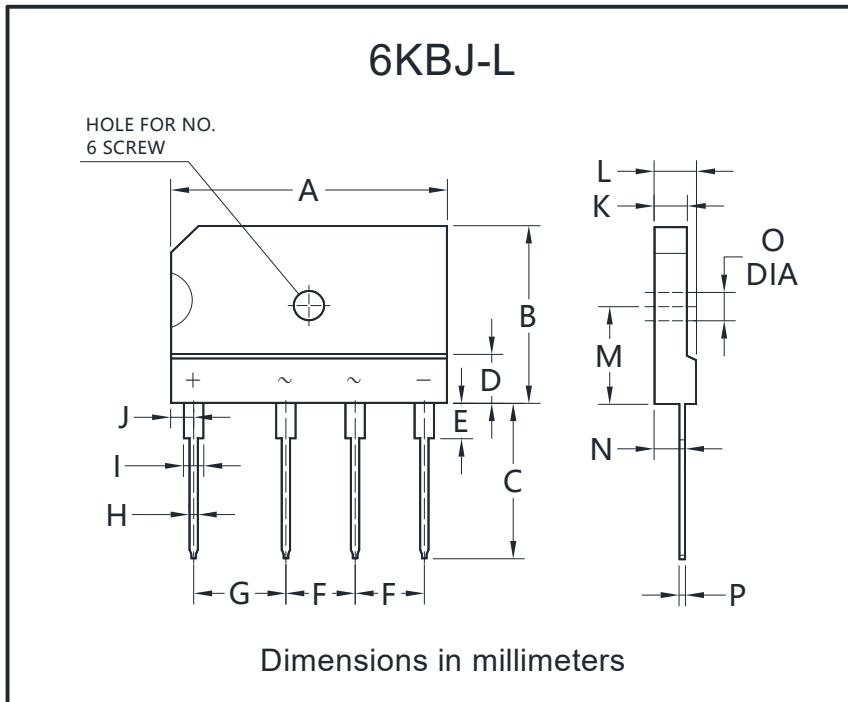


FIG4: Typical Reverse Characteristics



Outline Dimensions



| 6KBJ-L | | |
|--------|------|------|
| Dim | Min | Max |
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | 17.0 | 18.0 |
| D | 5.3 | 6.3 |
| 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 | 0.35 | 0.65 |



GBJ10AA THRU GBJ10MA

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