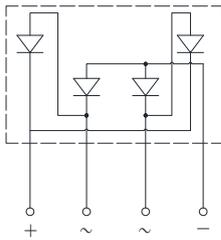
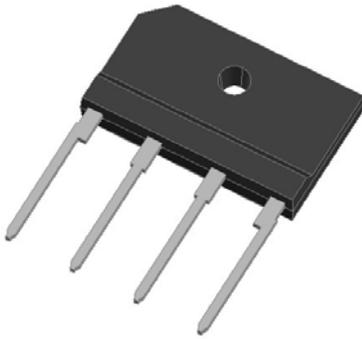


Bridge Rectifiers



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:** 4KBJ
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°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | KBJ10005A | KBJ1001A | KBJ1002A | KBJ1004A | KBJ1006A | KBJ1008A | KBJ1010A |
|---|--|------------------|------------|----------|----------|----------|----------|----------|----------|
| Device marking code | | | KBJ10005A | KBJ1001A | KBJ1002A | KBJ1004A | KBJ1006A | KBJ1008A | KBJ1010A |
| 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 =110°C | IO | A | 10.0 | | | | | |
| | Without heatsink T _a =25°C | | | 3.6 | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C | IFSM | A | 220 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C | | | 440 | | | | | | |
| Current squared time @1ms≤t≤8.3ms T _j =25°C, rating of per diode | I ² t | A ² S | 201 | | | | | | |
| 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 | | | | | | |
| Mounting torque @Recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | KBJ10005A | KBJ1001A | KBJ1002A | KBJ1004A | KBJ1006A | KBJ1008A | KBJ1010A |
|---|----------------|------|---|-----------|----------|----------|----------|----------|----------|----------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=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 | 70 | | | | | | |



KBJ10005A THRU KBJ1010A

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

| PARAMETER | | SYMBOL | UNIT | KBJ10005A | KBJ1001A | KBJ1002A | KBJ1004A | KBJ1006A | KBJ1008A | KBJ1010A |
|--------------------|--|-------------------|------|-----------|----------|----------|----------|----------|----------|----------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R _{θJ-A} | °C/W | 20 | | | | | | |
| | Between junction and case, With heatsink | R _{θJ-C} | | 2 | | | | | | |

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

■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| KBJ10005A ~ KBJ1010A | B1 | Approximate 4.27 | 20 | 1000 | 2000 | Tube |

■ Characteristics(Typical)

FIG1: I_o-T_c Curve

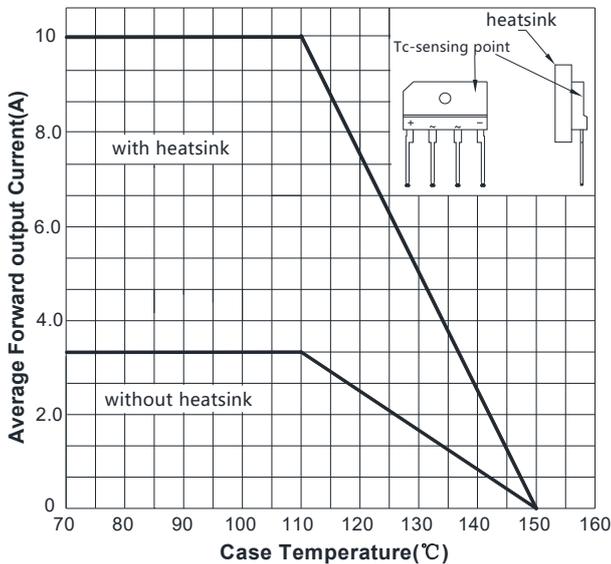


FIG2: Surge Forward Current Capability

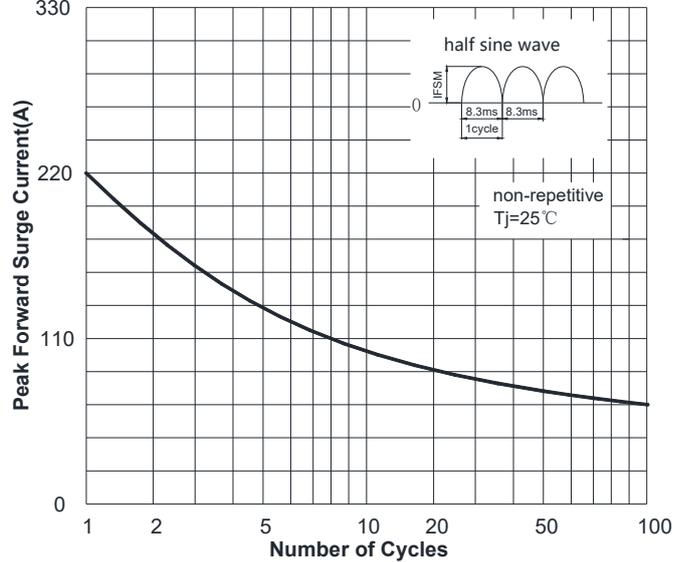


FIG3: Typical Forward Voltage

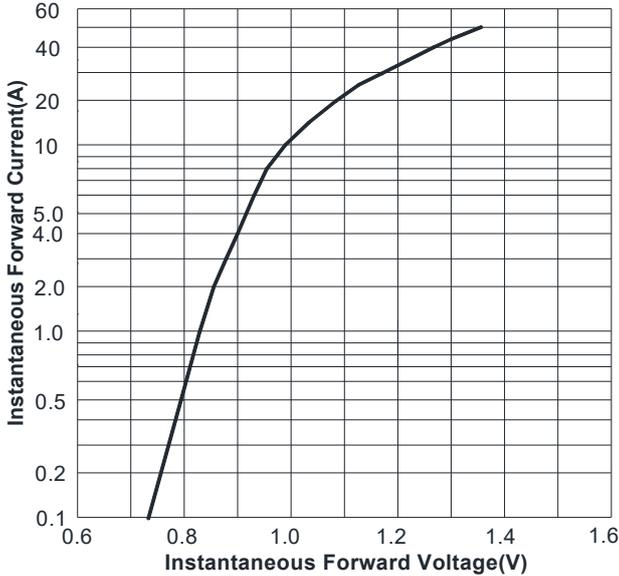
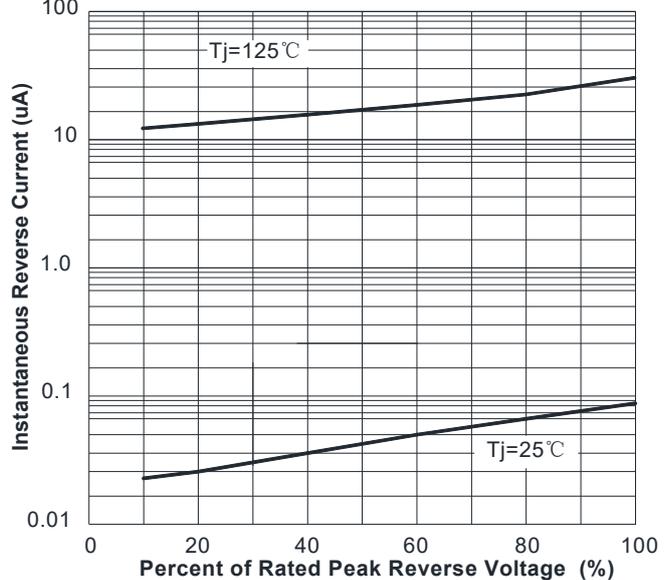


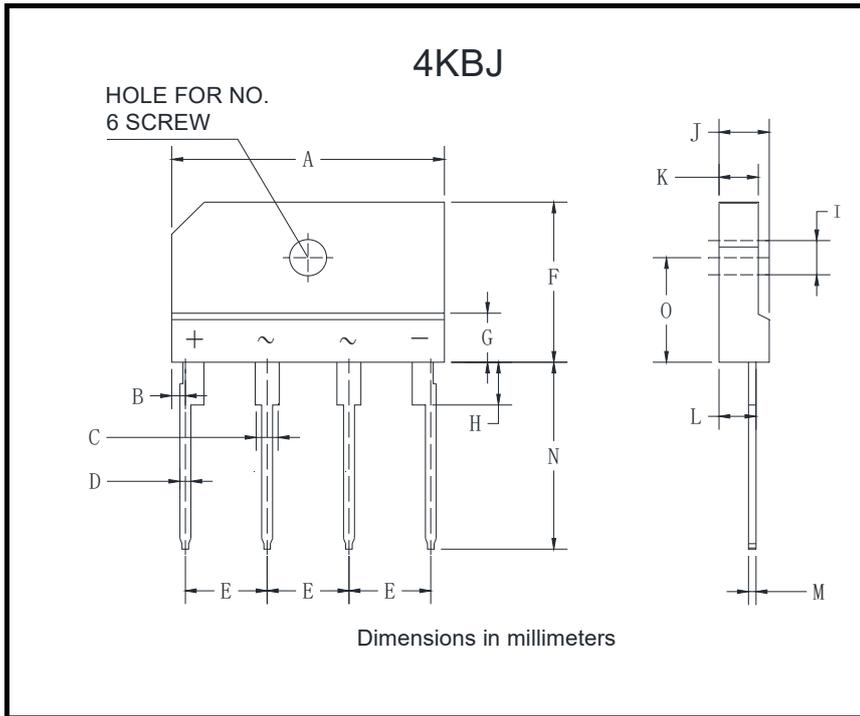
FIG4: Typical Reverse Characteristics





KBJ10005A THRU KBJ1010A

■ Outline Dimensions



| 4KBJ | | |
|------|------|------|
| Dim | Min | Max |
| A | 24.7 | 25.3 |
| B | 1.05 | 1.45 |
| C | 1.7 | 2.1 |
| D | 0.9 | 1.1 |
| E | 7.3 | 7.7 |
| F | 14.7 | 15.3 |
| G | 3.8 | 4.2 |
| H | 3.3 | 3.7 |
| I | 3.1 | 3.4 |
| J | 4.4 | 4.8 |
| K | 3.4 | 3.8 |
| L | 3.2 | 3.4 |
| M | 0.6 | 0.8 |
| N | 17.0 | 18.0 |
| O | 9.5 | 10.1 |



KBJ10005A THRU KBJ1010A

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