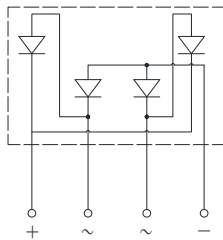
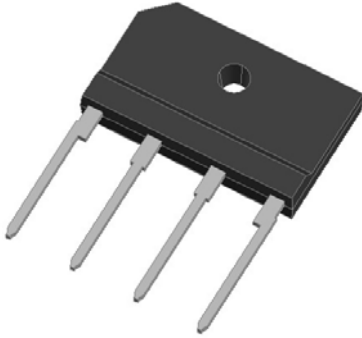


LOW VF Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Low VF
- 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 | KBJL1506 |
|--|-----------------------------|--------|-------|------------|
| Device marking code | | | | KBJL1506 |
| Maximum Repetitive Peak Reverse Voltage | | VRRM | V | 600 |
| Maximum RMS Voltage | | VRMS | V | 420 |
| Maximum DC blocking Voltage | | VDC | V | 600 |
| Average Rectified Output Current @60Hz sine wave, R-load | With heatsink Tc =105℃ | IO | A | 15 |
| | Without heatsink Ta =25℃ | | | 3.2 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃ | | IFSM | A | 250 |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | | 500 |
| Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode | | I²t | A²S | 259 |
| Storage temperature | | Tstg | ℃ | -55 ~ +150 |
| Junction temperature | | Tj | ℃ | -55 ~ +150 |
| Dielectric strength @ Terminals to case, AC 1 minute | | Vdis | 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 | KBJL1506 |
|---|----------------|------|---|----------|
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=7.5A | 0.92 |
| Maximum DC reverse current at rated DC blocking voltage per diode | IR | 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 | 98 |



KBJL1506

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

| PARAMETER | | SYMBOL | UNIT | KBJL1506 |
|--------------------|--|-------------------|------|----------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R _{θJ-A} | °C/W | 20 |
| | 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 | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| KBJL1506 | B1 | Approximate 4.27 | 20 | 1000 | 2000 | Tube |

■ Characteristics(Typical)

FIG1:I_o-T_c Curve

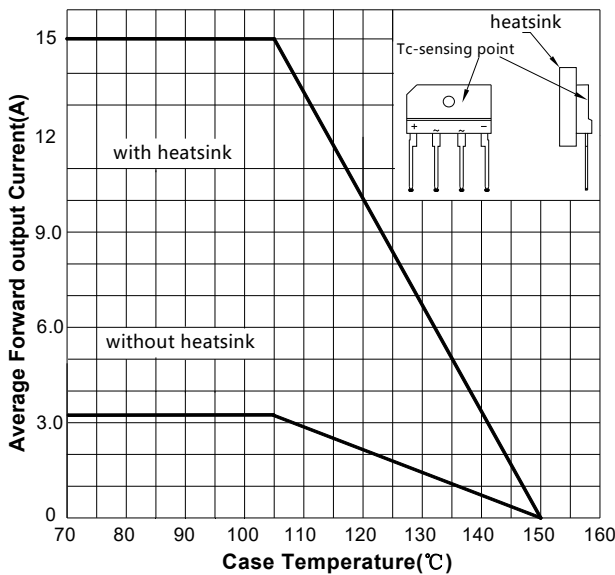


FIG2: Surge Forward Current Capability

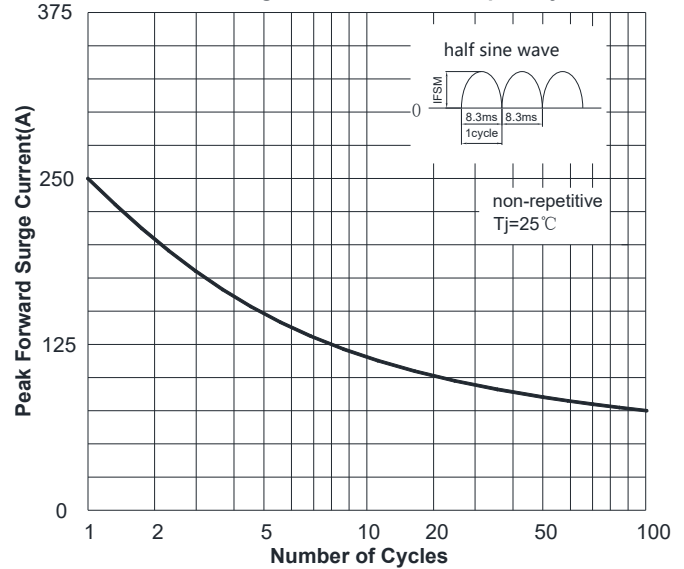


FIG3: Typical Forward Voltage

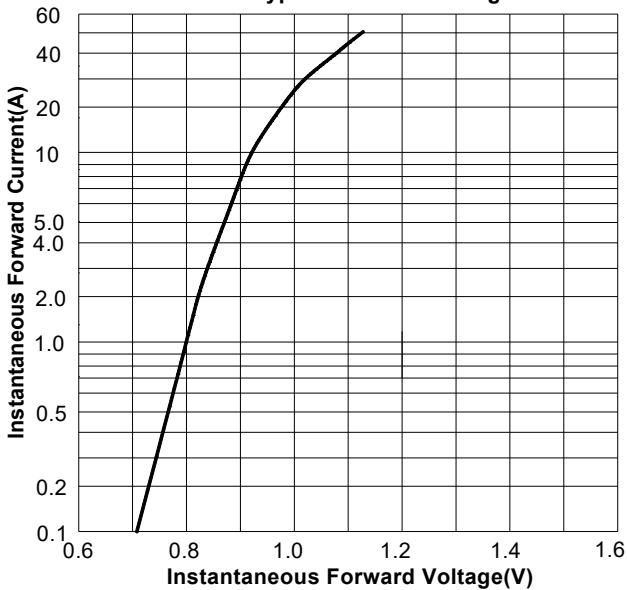
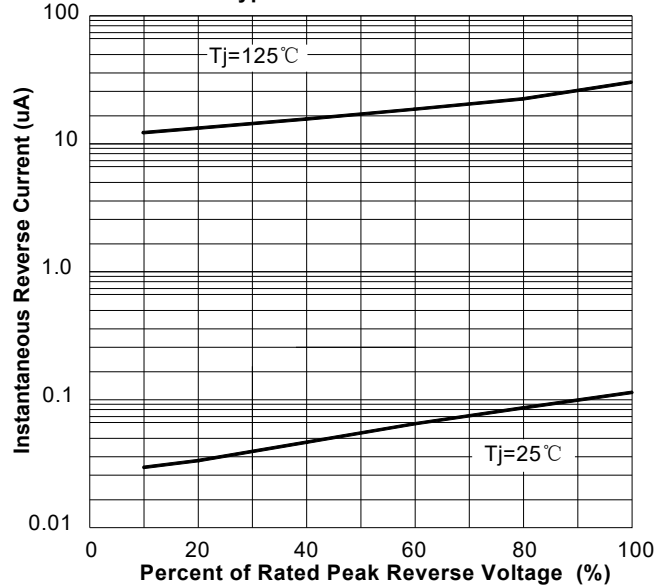
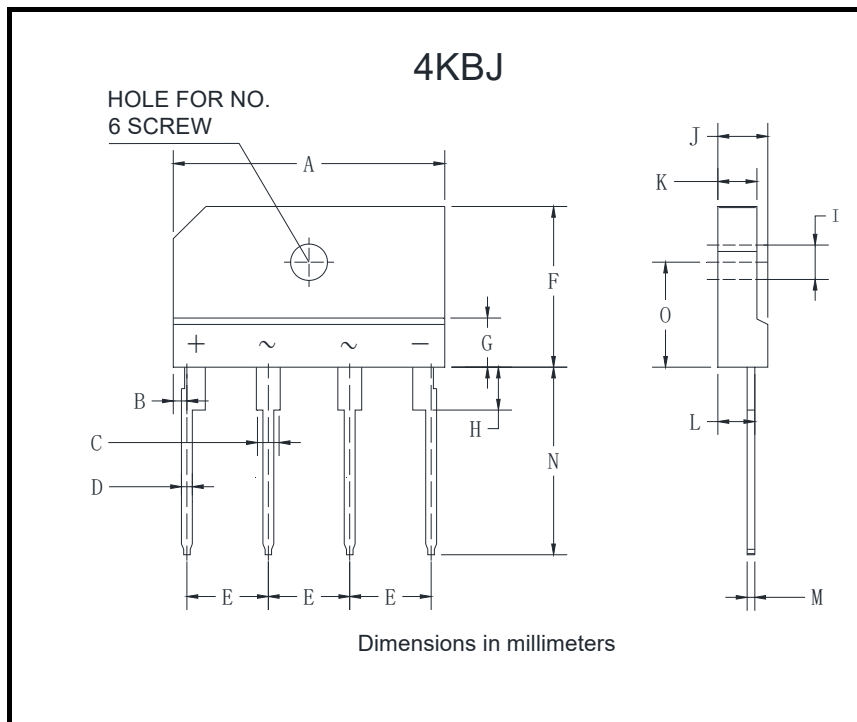


FIG4: Typical Reverse Characteristics





■ 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 |



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