

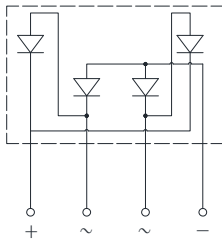
Bridge Rectifiers

Features

- UL recognition, file #E230084
- 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 | KBJ15005 | KBJ1501 | KBJ1502 | KBJ1504 | KBJ1506 | KBJ1508 | KBJ1510 |
|--|--|------------------|-----------|---------|---------|---------|---------|---------|---------|
| Device marking code | | | KBJ15005 | KBJ1501 | KBJ1502 | KBJ1504 | KBJ1506 | KBJ1508 | KBJ1510 |
| Repetitive Peak Reverse Voltage | VRRM | 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 | 15 | | | | | |
| | Without heatsink T _a =25°C | | | 3.6 | | | | | |
| Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, T _j =25°C | IFSM | A | 220 | | | | | | |
| 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 | 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 | KBJ15005 | KBJ1501 | KBJ1502 | KBJ1504 | KBJ1506 | KBJ1508 | KBJ1510 |
|---|------------------|------|-----------------------------------|----------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=7.5A | 1.00 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RRM} | 5 | | | | | | |



KBJ15005 THRU KBJ1510

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

| PARAMETER | | SYMBOL | UNIT | KBJ15005 | KBJ1501 | KBJ1502 | KBJ1504 | KBJ1506 | KBJ1508 | KBJ1510 |
|--------------------|--|------------------|--------------------|----------|---------|---------|---------|---------|---------|---------|
| Thermal Resistance | Between junction and ambient, Without heatsink | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 25 | | | | | | |
| | Between junction and case, With heatsink | $R_{\theta J-C}$ | | 2.3 | | | | | | |

■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|------------------|--------------|------------------|-----------------------|-------------------------|----------------------------|---------------|
| KBJ15005~KBJ1510 | B1 | Approximate 4.27 | 20 | 1000 | 2000 | Tube |
| KBJ15005~KBJ1510 | A1 | Approximate 4.27 | 300 | 300 | 3000 | Paper Box |

■ Characteristics(Typical)

FIG1: I_o - T_c Curve

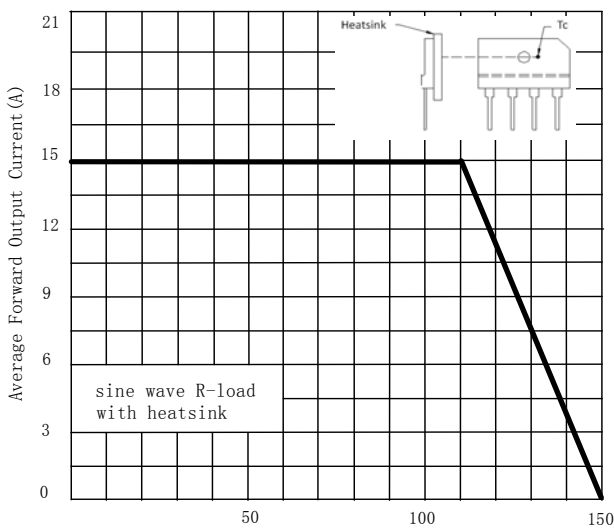


FIG2: Surge Forward Current Capability

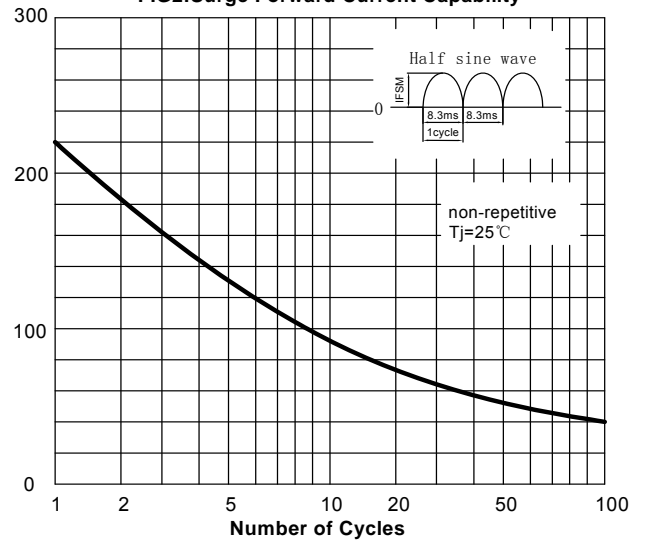


FIG3: Instantaneous Forward Voltage

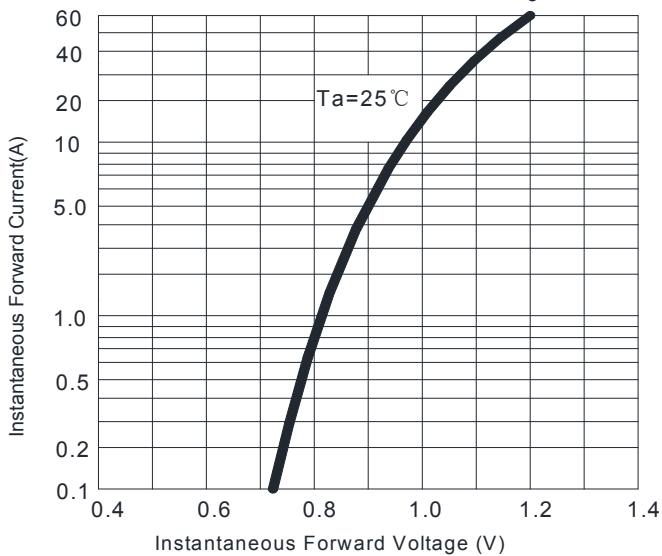
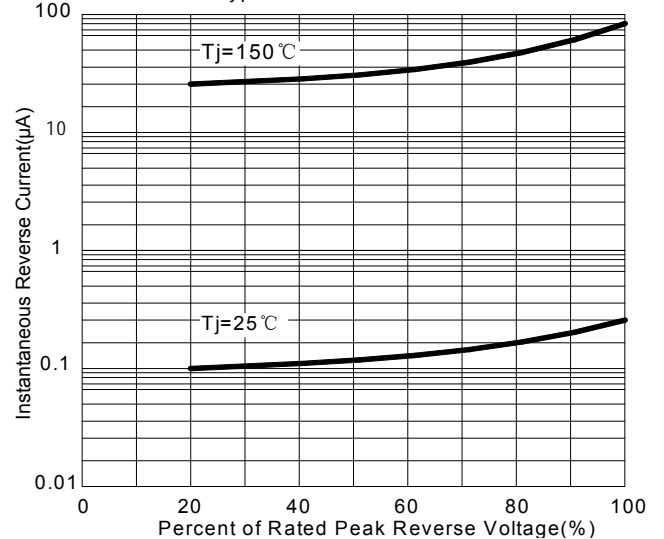


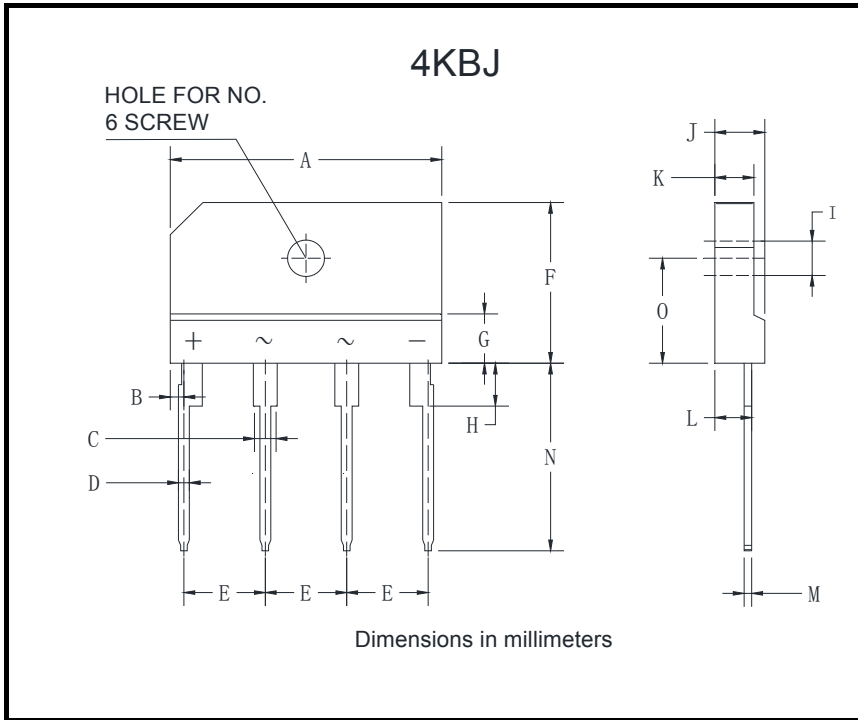
FIG4: Typical Reverse Characteristics





KBJ15005 THRU KBJ1510

■ 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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