







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 (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | KBJ4005 | KBJ401 | KBJ402 | KBJ404 | KBJ406 | KBJ408 | KBJ410 |
|--|------------------|------------------|-----------|--------|--------|--------|--------|--------|--------|
| Device marking code | | | KBJ4005 | KBJ401 | KBJ402 | KBJ404 | KBJ406 | KBJ408 | KBJ410 |
| Repetitive Peak Reverse Voltage | | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Rectified Output Current @60Hz sine With heatsink $T_c = 110^{\circ}C$ | - IO | Α | 4.0 | | | | | | |
| wave, R-load Without heatsink $T_a = 25^{\circ}C$ | .0 | А | 2.3 | | | | | | |
| Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, Tj=25℃ | IFSM | Α | 135 | | | | | | |
| Current squared time @1ms≤t≤8.3ms, Tj=25°C, rating of per diode | I ² t | A ² S | 75 | | | | | | |
| Storage Temperature | T _{stg} | ° | -55 ~+150 | | | | | | |
| Junction Temperature | Tj | $^{\circ}$ | -55 ~+150 | | | | | | |
| Dielectric strength | Vdis | KV | 2 | | | | | | |
| @ terminals to case, AC 1 minute | Vais | 100 | | | | | | | |
| Mounting torque | Tor | kg • cm | | | | 8 | | | |
| @recommend torque: 5kg • cm | | | | | | | | | |

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

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|--|--------|------|--------------------|---------|--------|--------|--------|--------|--------|--------|
| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | KBJ4005 | KBJ401 | KBJ402 | KBJ404 | KBJ406 | KBJ408 | KBJ410 |
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=2.0A | | | 1.00 | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | IRRM | μA | VRM=VRRM 5 | | | | | | | |

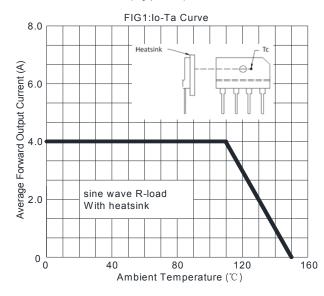
■Thermal Characteristics (T_a=25°C Unless otherwise specified)

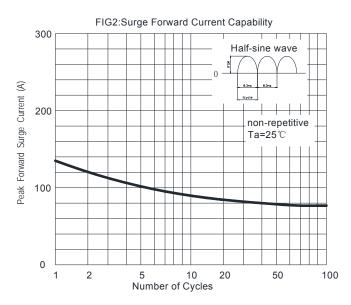
| P.A | ARAMETER | SYMBOL | UNIT | KBJ4005 | KBJ401 | KBJ402 | KBJ404 | KBJ406 | KBJ408 | KBJ410 |
|-----------------------|--|--------|------|---------|--------|--------|--------|--------|--------|--------|
| Theorem | Between junction and ambient, Without heatsink | RθJ-А | | 30.0 | | | | | | |
| Thermal Resistance | Between junction and case, With heatsink | RөJ-С | °C/W | | | | 5.5 | | | |

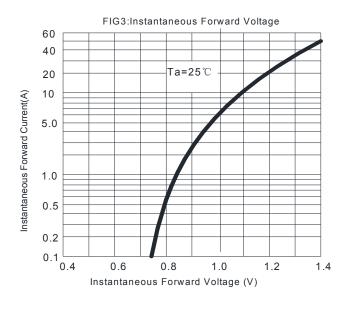
■Ordering Information (Example)

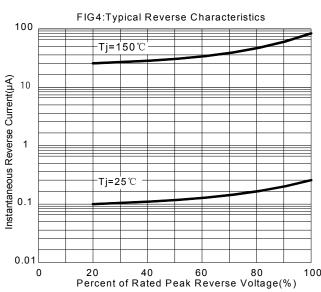
| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|--------------------------|-------------------------|----------------------------|---------------|
| KBJ4005~KBJ410 | B1 | Approximate 4.27 | 20 | 1000 | 2000 | Tube |

■ Characteristics (Typical)



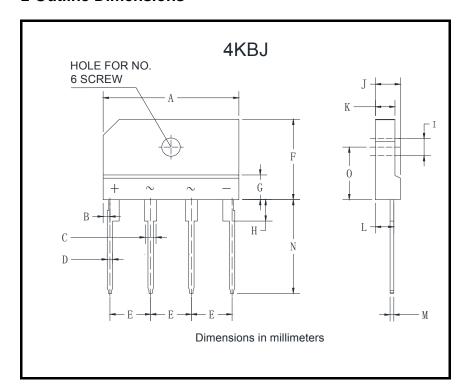








■ Outline Dimensions



| 4KBJ | | | | | | |
|------|------|------|--|--|--|--|
| Dim | Min | Max | | | | |
| Α | 24.7 | 25.3 | | | | |
| В | 1.05 | 1.45 | | | | |
| С | 1.7 | 2.1 | | | | |
| D | 0.9 | 1.1 | | | | |
| Е | 7.3 | 7.7 | | | | |
| F | 14.7 | 15.3 | | | | |
| G | 3.8 | 4.2 | | | | |
| Н | 3.3 | 3.7 | | | | |
| I | 3.1 | 3.4 | | | | |
| J | 4.4 | 4.8 | | | | |
| K | 3.4 | 3.8 | | | | |
| L | 3.2 | 3.4 | | | | |
| М | 0.6 | 0.8 | | | | |
| N | 17.0 | 18.0 | | | | |
| 0 | 9.5 | 10.1 | | | | |



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