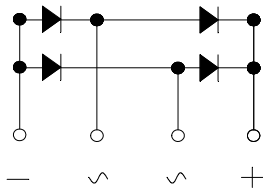
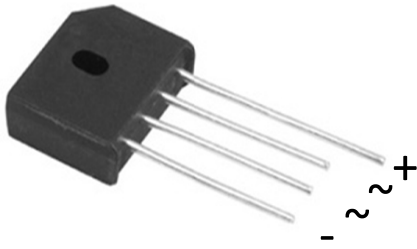


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Ideal for printed circuit boards
- 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:** KBU
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 | KBU6005 | KBU601 | KBU602 | KBU604 | KBU606 | KBU608 | KBU610 |
|---|------------------------------|------|-----------|--------|--------|--------|--------|--------|--------|
| Device marking code | | | KBU6005 | KBU601 | KBU602 | KBU604 | KBU606 | KBU608 | KBU610 |
| Repetitive Peak Reverse Voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Rectified Output Current @60Hz sine wave, R-load | With heatsink Tc =105°C | IO | A | 6 | | | | | |
| | Without heatsink Ta =25°C | | | 2.5 | | | | | |
| Surge(Non-repetitive)Forward Current @60Hz half-sine wave, 1 cycle, Ta=25°C | IFSM | A | 135 | | | | | | |
| Current Squared Time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode | I²t | A²S | 75 | | | | | | |
| Storage Temperature | Tstg | °C | -55 ~+150 | | | | | | |
| Junction Temperature | Tj | °C | -55 ~+150 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | KBU6005 | KBU601 | KBU602 | KBU604 | KBU606 | KBU608 | KBU610 |
|---|--------|------|-----------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=3A | 1.0 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | IRRM | µA | VRM=VRRM | 10 | | | | | | |



KBU6005 THRU KBU610

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

| PARAMETER | | SYMBOL | UNIT | KBU6005 | KBU601 | KBU602 | KBU604 | KBU606 | KBU608 | KBU610 |
|--------------------|--|----------------|------|-------------------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R θ J-A | °C/W | 26 ⁽¹⁾ | | | | | | |
| | Between junction and case, With heatsink | R θ J-C | | 5 ⁽²⁾ | | | | | | |

- Notes
- (1) Thermal resistance from junction to ambient with units mounted in free air ,no heat sink,P.C.B. at 0.375" (9.5mm) lead length with 0.5×0.5"(12×12mm) copper pads.
 - (2) Thermal resistance from junction to case with units mounted on an aluminum plate heat sink.

■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|-----------------|-----------------------|-------------------------|----------------------------|---------------|
| KBU6005~KBU610 | A1 | Approximate 7.2 | 400 | 400 | 2400 | Paper Box |

■ Characteristics(Typical)

FIG1:Io-Tc Curve

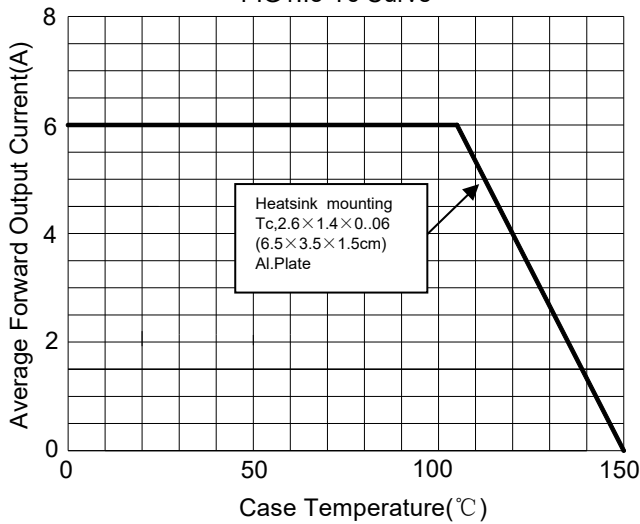


FIG2: Surge Forward Current Capability

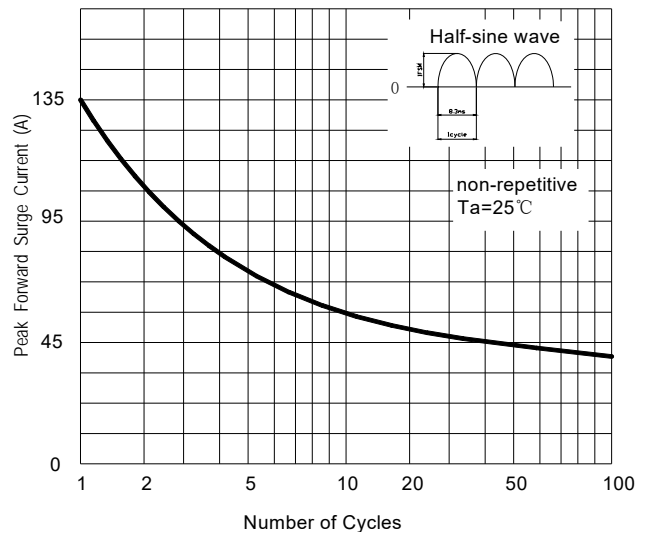


FIG3: Instantaneous Forward Voltage

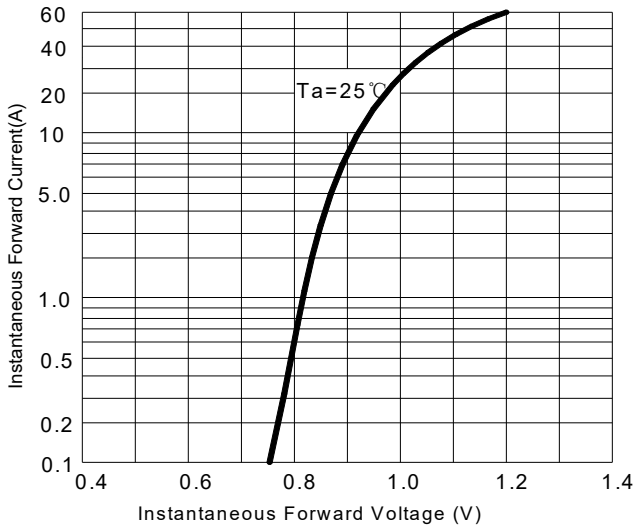
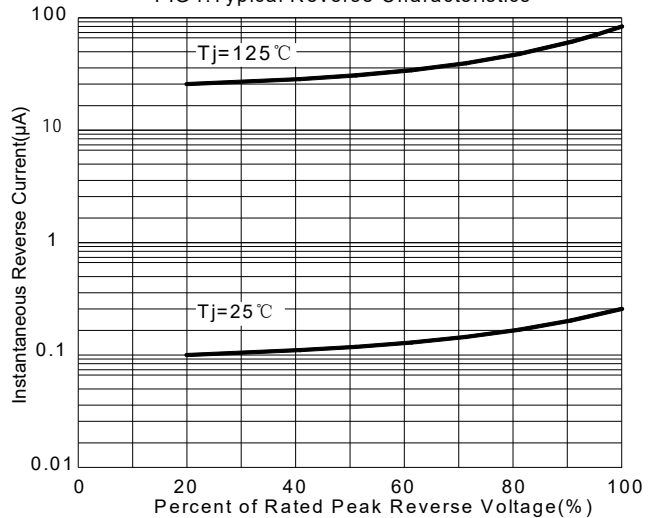


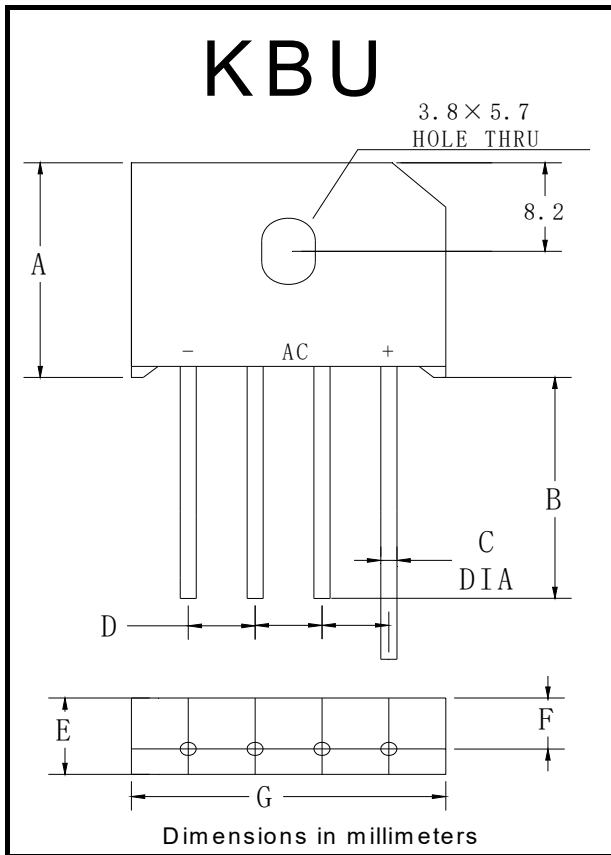
FIG4: Typical Reverse Characteristics





KBU6005 THRU KBU610

■ Outline Dimensions



| KBU | | |
|-----|------|------|
| Dim | Min | Max |
| A | 18.8 | 19.8 |
| B | 20.0 | / |
| C | 1.2 | 1.3 |
| D | 4.6 | 5.6 |
| E | 6.8 | 7.1 |
| F | 4.6 | 5.0 |
| G | 22.7 | 23.7 |



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