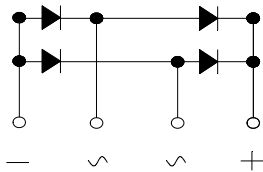
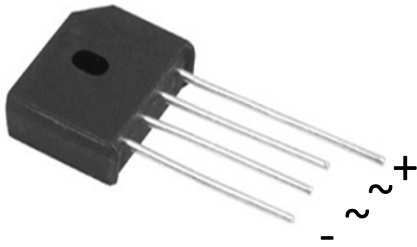


## Bridge Rectifiers



### 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 | KBU8005   | KBU801 | KBU802 | KBU804 | KBU806 | KBU808 | KBU810 |
|----------------------------------------------------------------------------|-----------------------------|--------|------|-----------|--------|--------|--------|--------|--------|--------|
| Device marking code                                                        |                             |        |      | KBU8005   | KBU801 | KBU802 | KBU804 | KBU806 | KBU808 | KBU810 |
| Repetitive Peak Reverse Voltage                                            |                             | VRRM   | V    | 50        | 100    | 200    | 400    | 600    | 800    | 1000   |
| Average Rectified Output Current @60Hz sine wave, R-load                   | With heatsink<br>Tc =115℃   | IO     | A    | 8         |        |        |        |        |        |        |
|                                                                            | Without heatsink<br>Ta =25℃ |        |      | 2.8       |        |        |        |        |        |        |
| Surge(Non-repetitive)Forward Current @60Hz half-sine wave, 1 cycle, Ta=25℃ |                             | IFSM   | A    | 150       |        |        |        |        |        |        |
| Current Squared Time @1ms≤t≤8.3ms<br>Tj=25℃,Rating of per diode            |                             | I²t    | A²S  | 93        |        |        |        |        |        |        |
| Storage Temperature                                                        |                             | Tstg   | ℃    | -55 ~+150 |        |        |        |        |        |        |
| Junction Temperature                                                       |                             | Tj     | ℃    | -55 ~+150 |        |        |        |        |        |        |

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

| PARAMETER                                                         | SYMBOL | UNIT | TEST CONDITIONS | KBU8005 | KBU801 | KBU802 | KBU804 | KBU806 | KBU808 | KBU810 |
|-------------------------------------------------------------------|--------|------|-----------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | VF     | V    | IFM=4A          | 1.1     |        |        |        |        |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | IRRM   | µA   | VRM=VRRM        | 10      |        |        |        |        |        |        |



# KBU8005 THRU KBU810

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER          |                                                | SYMBOL            | UNIT | KBU8005            | KBU801 | KBU802 | KBU804 | KBU806 | KBU808 | KBU810 |
|--------------------|------------------------------------------------|-------------------|------|--------------------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R <sub>θJ-A</sub> | °C/W | 28 <sup>(1)</sup>  |        |        |        |        |        |        |
|                    | Between junction and case, With heatsink       | R <sub>θJ-C</sub> |      | 4.8 <sup>(2)</sup> |        |        |        |        |        |        |

### 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)  | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| KBU8005~KBU810 | A1           | Approximate 7.2 | 400                  | 400                     | 2400                       | Paper Box     |

## ■ Characteristics(Typical)

FIG1:I<sub>o</sub>-T<sub>c</sub> Curve

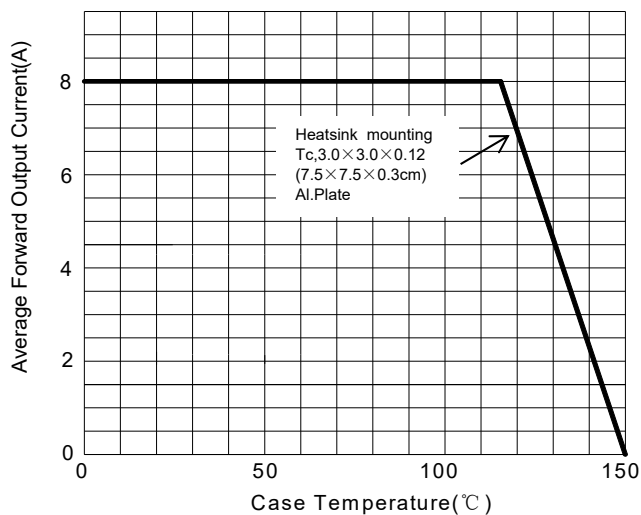


FIG2: Surge Forward Current Capability

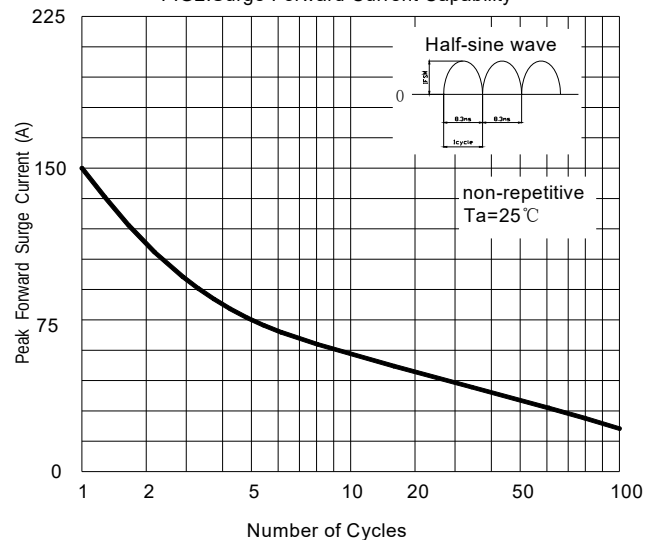


FIG3: Instantaneous Forward Voltage

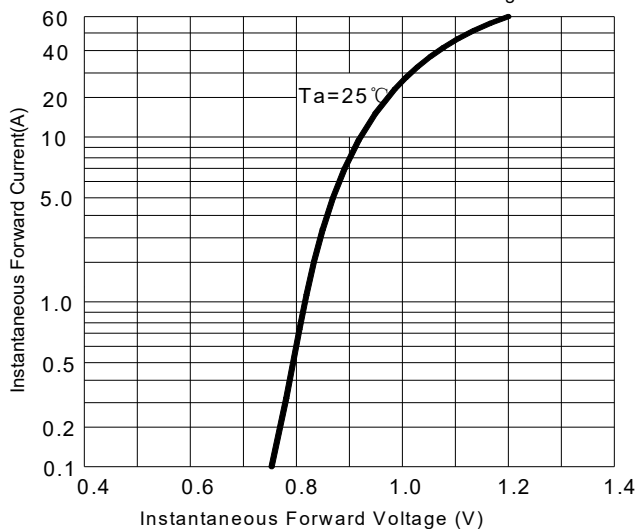
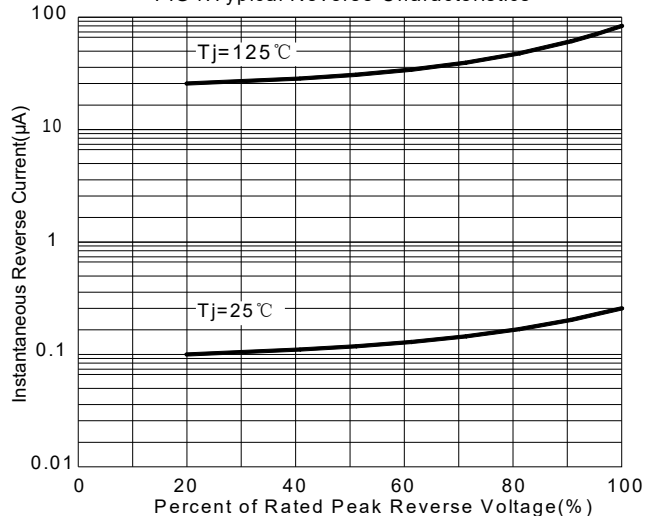


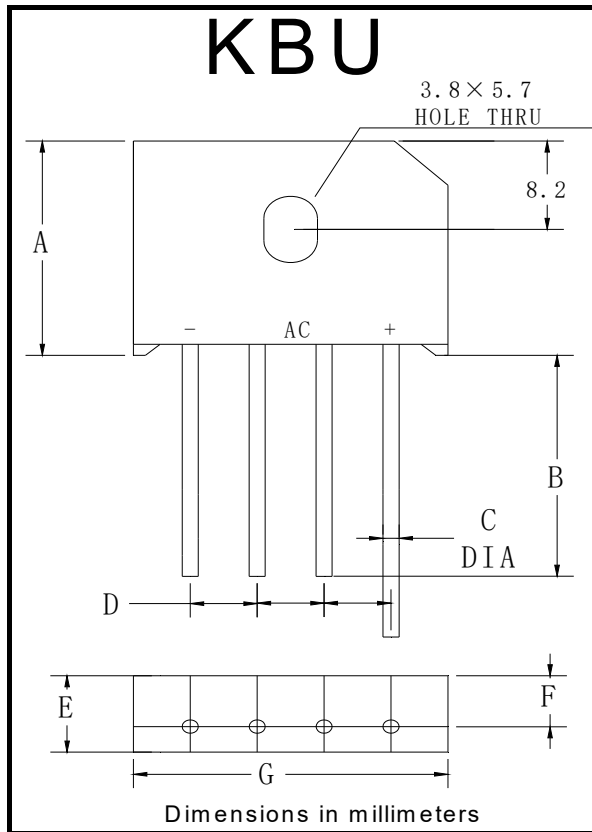
FIG4: Typical Reverse Characteristics





## KBU8005 THRU KBU810

### ■ 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   | 6.7  | 7.1  |
| F   | 4.6  | 5.0  |
| G   | 22.7 | 23.7 |



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