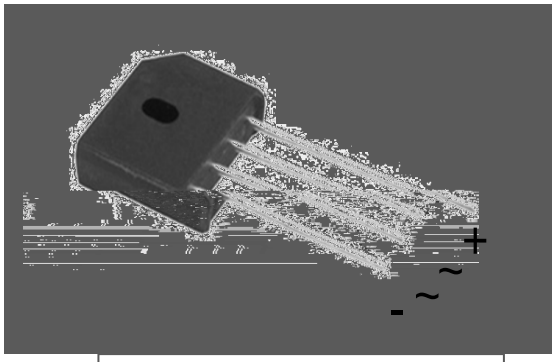
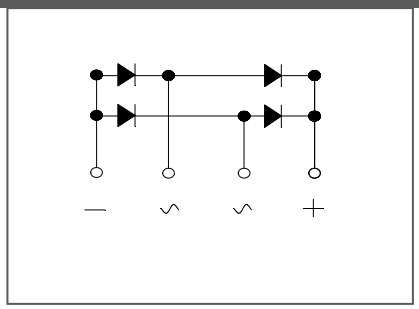
# Bridge Rectifiers



## Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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 ($T_a$=25 Unless otherwise specified

| PARAMETER | | SYMBOL | UNIT | KBU15005 | KBU1501 | KBU1502 | KBU1504 | KBU1506 | KBU1508 | KBU1510 |
|---|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | | KBU15005 | KBU1501 | KBU1502 | KBU1504 | KBU1506 | KBU1508 | KBU1510 |
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | | $V_{RMS}$ | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | | $V_{DC}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Rectified Output Current @60Hz sine wave, R-load | With heatsink Tc =105 | $I_O$ | A | 15.0 | | | | | | |
| | Without heatsink Ta =25 | | | 3.2 | | | | | | |
| Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave,1 cycle, Tj=25 | | $I_{FSM}$ | A | 220 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25 | | | | 440 | | | | | | |
| Current Squared Time @1ms≤t≤8.3ms Tj=25 ,Rating of per diode | | $I^2t$ | $A^2S$ | 201 | | | | | | |
| Mounting torque @Recommend torque 5kg cm | | Tor | kg cm | 8 | | | | | | |
| Storage temperature | | $T_{stg}$ | | -55 ~ +150 | | | | | | |
| Junction temperature | | $T_j$ | | -55 ~ +150 | | | | | | |

## ■Electrical Characteristics Ta=25 Unless otherwise specified

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | KBU15005 | KBU1501 | KBU1502 | KBU1504 | KBU1506 | KBU1508 | KBU1510 |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=7.5A | 1.0 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_R$ | μA | $T_j$=25 | 5 | | | | | | |
| | | | $T_j$=125 | 100 | | | | | | |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 67 | | | | | | |

## ■Thermal Characteristics Ta=25 Unless otherwise specified

| PARAMETER | | SYMBOL | UNIT | KBU15005 | KBU1501 | KBU1502 | KBU1504 | KBU1506 | KBU1508 | KBU1510 |
|---|---|---|---|---|---|---|---|---|---|---|
| Typical Thermal Resistance | Between junction and ambient, Without heatsink | $R_{\theta J-A}$ | /W | 25.0 | | | | | | |
| | Between junction and case, With heatsink | $R_{\theta J-C}$ | | 1.6 | | | | | | |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■Ordering Information (Example)

| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| KBU15005 ~ KBU1510 | A1 | Approximate 7.2 | 400 | 400 | 2400 | Paper Box |

## ■ Characteristics(Typical)

FIG1:Io-Tc Curve

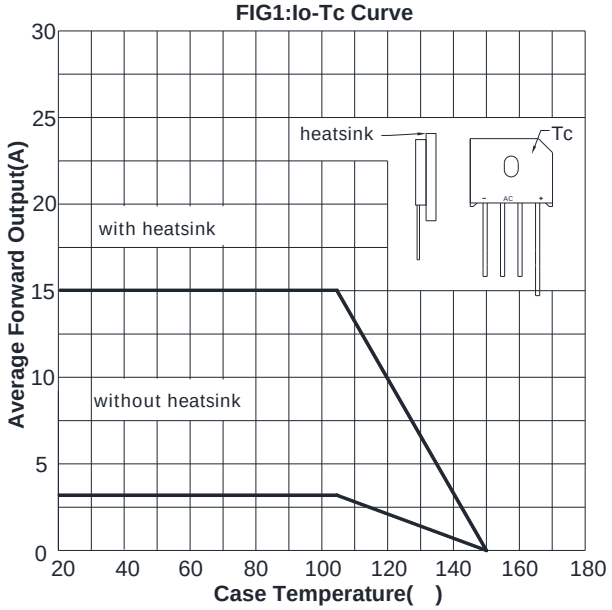
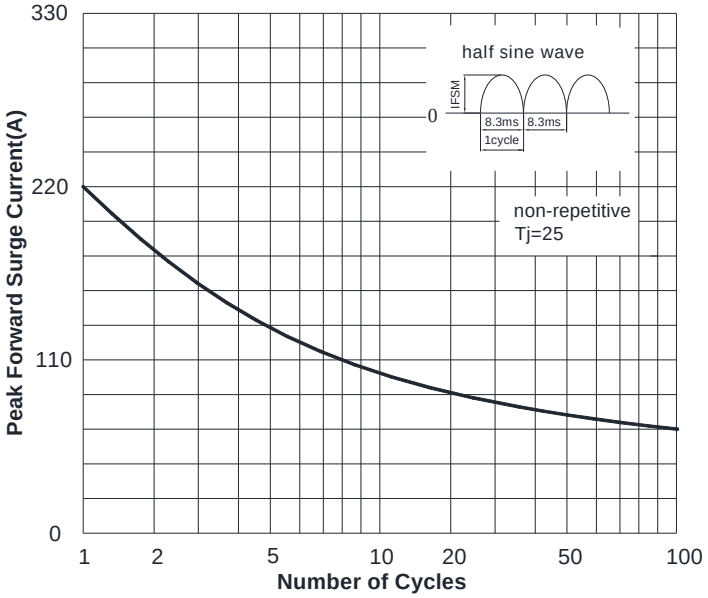



FIG2:Surge Forward Current Capability



## ■ 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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