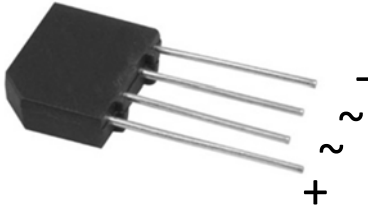


Bridge Rectifiers

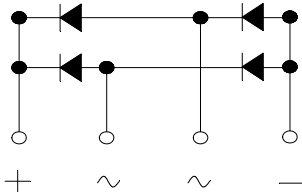


Features

- 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:** KBP
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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | KBP2005 | KBP201 | KBP202 | KBP204 | KBP206 | KBP208 | KBP210 |
|--|--------|------------------|-----------|--------|--------|--------|--------|--------|--------|
| Device marking code | | | KBP2005 | KBP201 | KBP202 | KBP204 | KBP206 | KBP208 | KBP210 |
| Repetitive peak reverse voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, Without heatsink, $T_a=30^\circ\text{C}$ | I_O | A | 2 | | | | | | |
| Surge(non-repetitive)forward current @60HZ half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$ | IFSM | A | 45 | | | | | | |
| Current squared time @1ms≤t<8.3ms $T_j=25^\circ\text{C}$, rating of per diode | I^2t | A ² S | 8.4 | | | | | | |
| Storage temperature | Tstg | °C | -55 ~+150 | | | | | | |
| Junction temperature | Tj | °C | -55 ~+150 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | KBP2005 | KBP201 | KBP202 | KBP204 | KBP206 | KBP208 | KBP210 |
|---|------------------|------|-----------------------------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=1.0A | 1.05 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RRM} | 10 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | KBP2005 | KBP201 | KBP202 | KBP204 | KBP206 | KBP208 | KBP210 |
|-----------------------------------|--|-------------------|---------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance ⁽¹⁾ | Between junction and ambient, Without heatsink | R _{θJ-A} | 30 | | | | | | |
| | Between junction and lead | R _{θJ-L} | 11 | | | | | | |

Notes

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47×0.47”(12×12mm) copper pads



KBP2005 THRU KBP210

Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| KBP2005~KBP210 | A1 | Approximate 1.75 | 500 | 500 | 5000 | Paper Box |

Characteristics (Typical)

FIG1:Io-Ta Curve

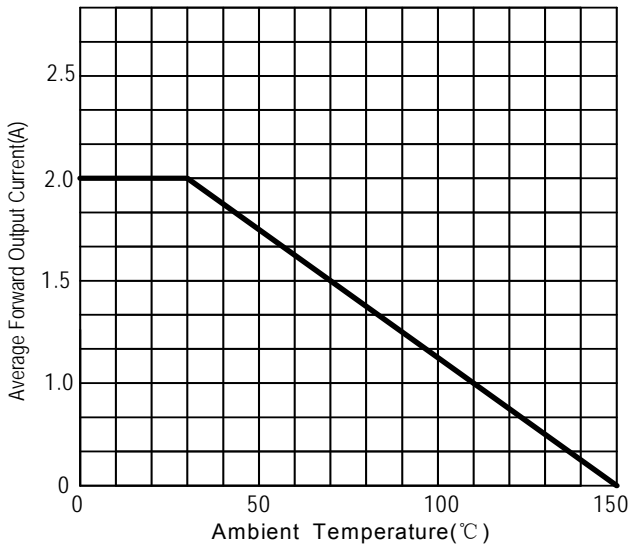


FIG2: Surge Forward Current Capability

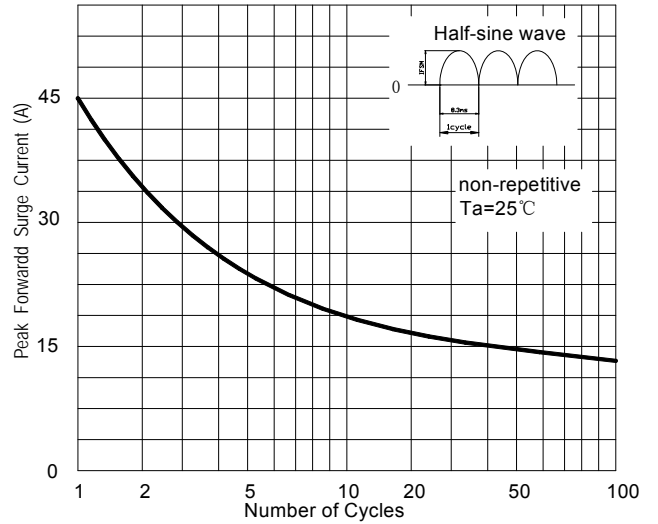


FIG3: Instantaneous Forward Voltage

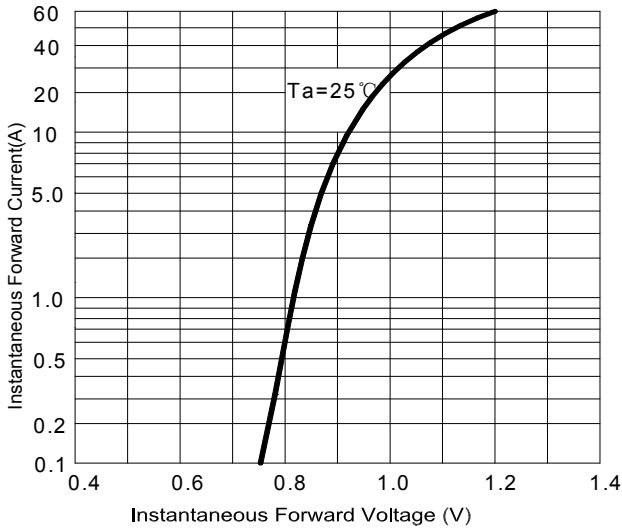
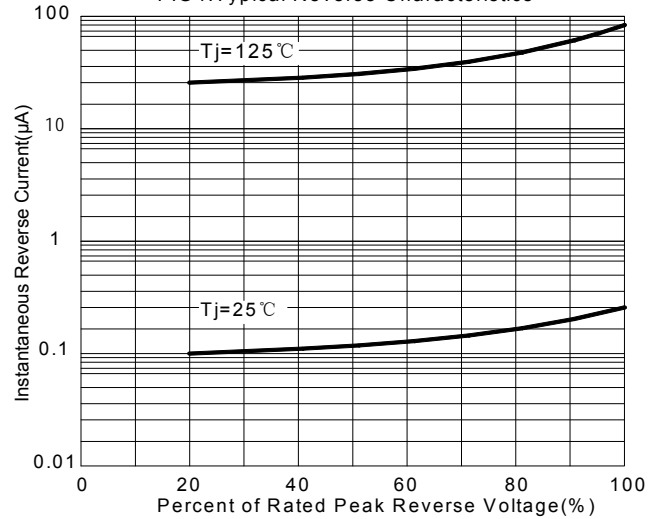


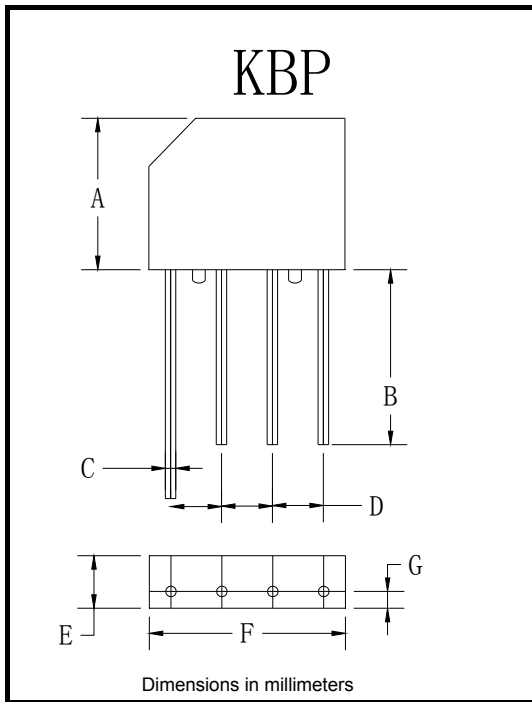
FIG4: Typical Reverse Characteristics





KBP2005 THRU KBP210

■ Outline Dimensions



| KBP | | |
|-----|------|------|
| Dim | Min | Max |
| A | 11.0 | 11.6 |
| B | 12.7 | / |
| C | 0.7 | 0.9 |
| D | 3.6 | 4.1 |
| E | 3.7 | 3.95 |
| F | 14.4 | 15.0 |
| G | 1.10 | 1.27 |



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