

## Bridge Rectifiers

### Features

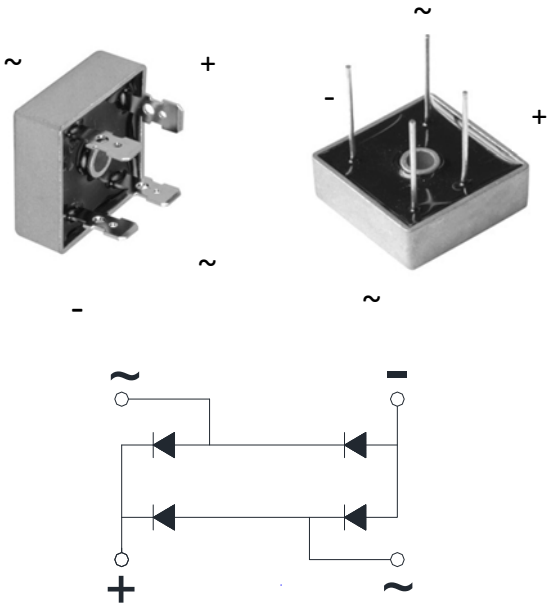
- UL recognition file number E230084
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

### Mechanical Data

- **Package:** KBPC, KBPC-W  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102  
Suffix letter "W" added to indicate wire leads(e.g. KBPC1510W)



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

| PARAMETER   | SYMBOL           | UNIT             | KBPC15005 | KBPC1501 | KBPC1502 | KBPC1504 | KBPC1506 | KBPC1508 | KBPC1510 |
|---|------------------|------------------|-----------|----------|----------|----------|----------|----------|----------|
| Device marking code   |                  |                  | KBPC15005 | KBPC1501 | KBPC1502 | KBPC1504 | KBPC1506 | KBPC1508 | KBPC1510 |
| Repetitive Peak Reverse Voltage   | VRRM             | V                | 50        | 100      | 200      | 400      | 600      | 800      | 1000     |
| Average Rectified Output Current<br>@60Hz sine Wave, R-load, With heatsink,<br>T <sub>c</sub> =55°C | I <sub>O</sub>   | A                | 15        |          |          |          |          |          |          |
| Surge(Non-repetitive)Forward Current<br>@60Hz Half-sine Wave, 1 cycle, T <sub>a</sub> =25°C         | I <sub>FSM</sub> | A                | 300       |          |          |          |          |          |          |
| Current Squared Time @1ms≤t≤8.3ms<br>T <sub>j</sub> =25°C, Rating of per diode                      | I <sup>2</sup> t | A <sup>2</sup> S | 375       |          |          |          |          |          |          |
| Storage Temperature   | T <sub>stg</sub> | °C               | -55 ~+150 |          |          |          |          |          |          |
| Junction Temperature  | T <sub>j</sub>   | °C               | -55 ~+150 |          |          |          |          |          |          |
| Dielectric Strength, Terminals to case, AC<br>1 minute  | V <sub>dis</sub> | KV               | 2.5       |          |          |          |          |          |          |

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

| PARAMETER   | SYMBOL           | UNIT | TEST CONDITIONS                   | KBPC15005 | KBPC1501 | KBPC1502 | KBPC1504 | KBPC1506 | KBPC1508 | KBPC1510 |
|---|------------------|------|-----------------------------------|-----------|----------|----------|----------|----------|----------|----------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>  | V    | I <sub>FM</sub> =7.5A             | 1.1       |          |          |          |          |          |          |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM</sub> | μA   | V <sub>RM</sub> =V <sub>RMM</sub> | 10        |          |          |          |          |          |          |

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

| PARAMETER  | SYMBOL             | UNIT | KBPC15005 | KBPC1501 | KBPC1502 | KBPC1504 | KBPC1506 | KBPC1508 | KBPC1510 |
|--|--------------------|------|-----------|----------|----------|----------|----------|----------|----------|
| Thermal Resistance<br>Between junction and case, With heatsink | R <sub>θ J-C</sub> | °C/W | 3.4       |          |          |          |          |          |          |



# KBPC15005(W) THRU KBPC1510(W)

## ■ Ordering Information (Example)

| PREFERRED P/N        | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| KBPC15005~KBPC1510   | A1           | Approximate 24.5 | 50                   | 50                      | 500                        | Paper Box     |
| KBPC15005W~KBPC1510W | A1           | Approximate 22.5 | 50                   | 50                      | 500                        | Paper Box     |

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

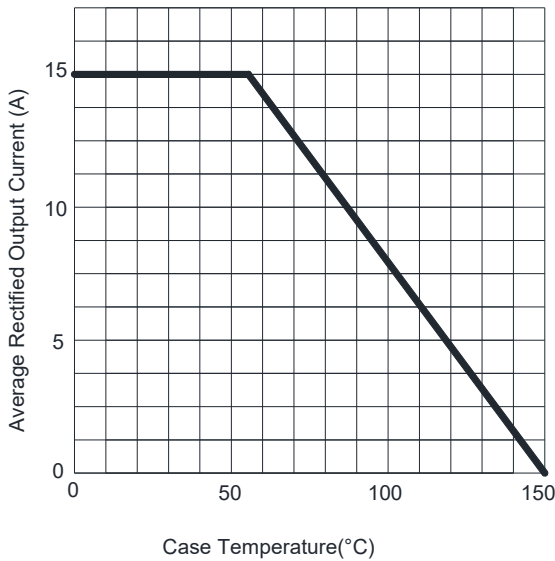


FIG2:Surge Forward Current Capability

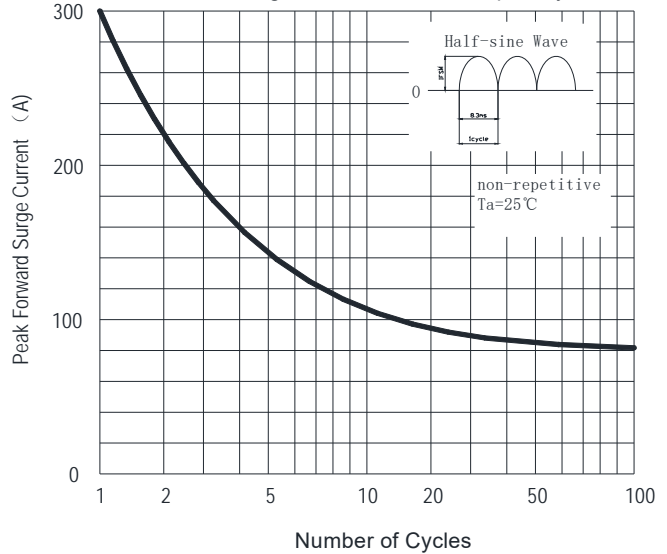


FIG3:Instantaneous Forward Voltage

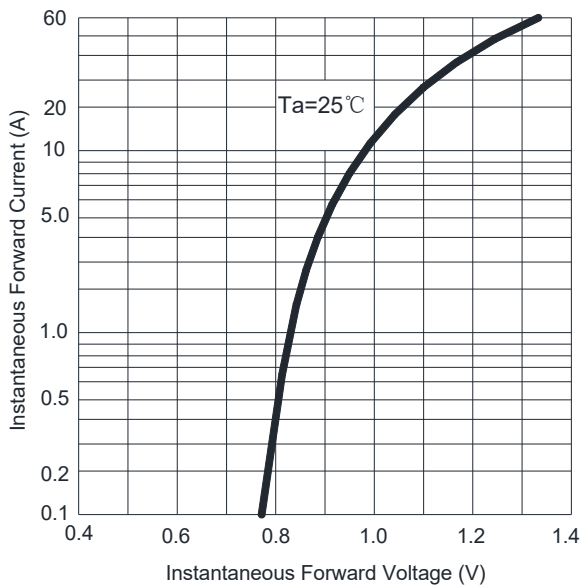
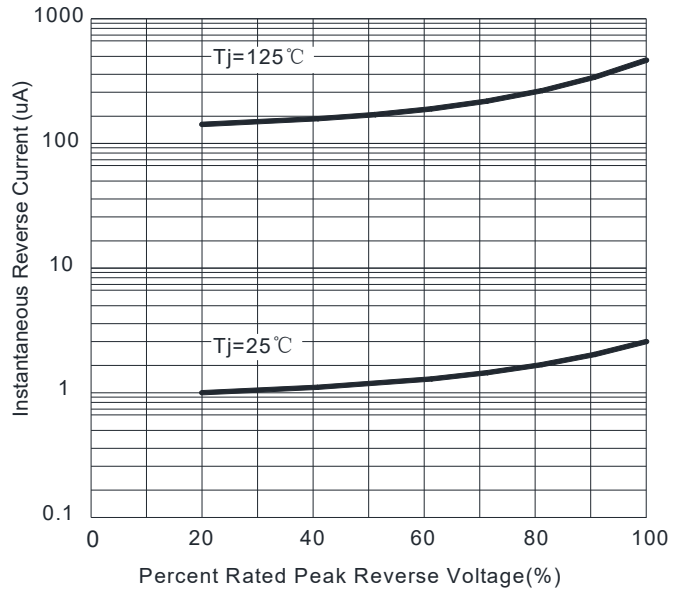


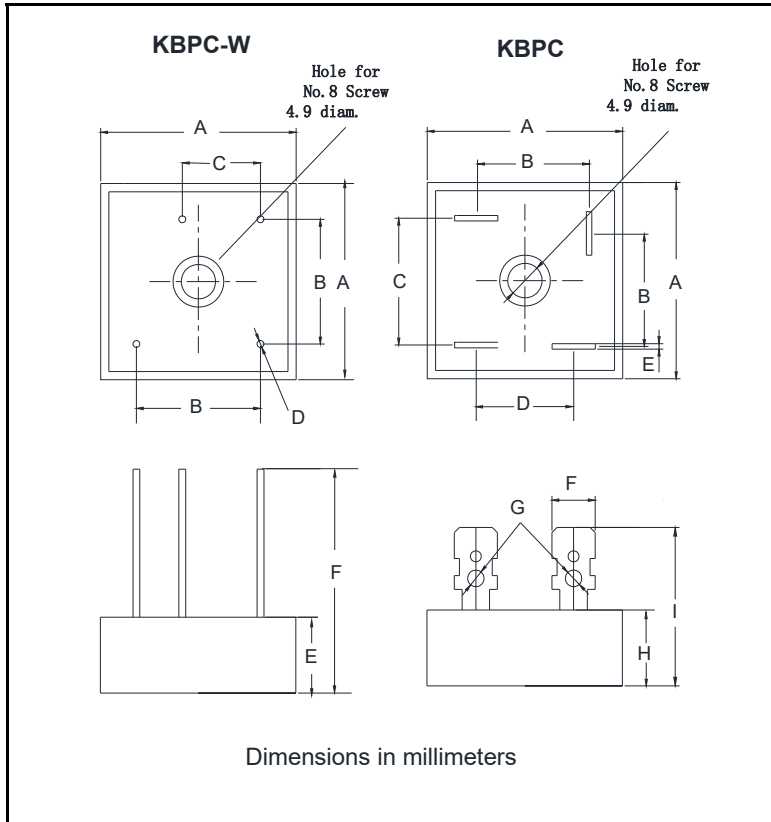
FIG4:Typical Reverse Characteristics





# KBPC15005(W) THRU KBPC1510(W)

## ■ Outline Dimensions



| KBPC-W |      |      |
|--------|------|------|
| Dim    | Min  | Max  |
| A      | 28.2 | 28.8 |
| B      | 17.1 | 19.1 |
| C      | 10.4 | 12.4 |
| D      | 0.95 | 1.05 |
| E      | 10.8 | 11.2 |
| F      | 30   |      |

| KBPC |      |      |
|------|------|------|
| Dim  | Min  | Max  |
| A    | 28.2 | 28.8 |
| B    | 15.3 | 17.3 |
| C    | 17.1 | 19.1 |
| D    | 13.2 | 15.2 |
| E    | 0.75 | 0.85 |
| F    | 6.2  | 6.4  |
| G    | 2.3  | 2.5  |
| H    | 10.8 | 11.2 |
| I    | 19   |      |



## KBPC15005(W) THRU KBPC1510(W)

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