

■ 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_a=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 @60Hz sine Wave, R-load, With heatsink, T _c =55°C | I _O | A | 15 | | | | | | |
| Surge(Non-repetitive)Forward Current @60Hz Half-sine Wave, 1 cycle, T _a =25°C | IFSM | A | 300 | | | | | | |
| Current Squared Time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode | I ² t | A ² S | 375 | | | | | | |
| Storage Temperature | T _{stg} | °C | -55 ~+150 | | | | | | |
| Junction Temperature | T _j | °C | -55 ~+150 | | | | | | |
| Dielectric Strength, Terminals to case, AC 1 minute | V _{dis} | KV | 2.5 | | | | | | |

■ ELECTRICAL CHARACTERISTICS (T_a=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 _{FM} | V | I _{FM} =7.5A | 1.1 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RMM} | 10 | | | | | | |

■ THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

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

■ **PACKAGING INFORMATION**

| 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

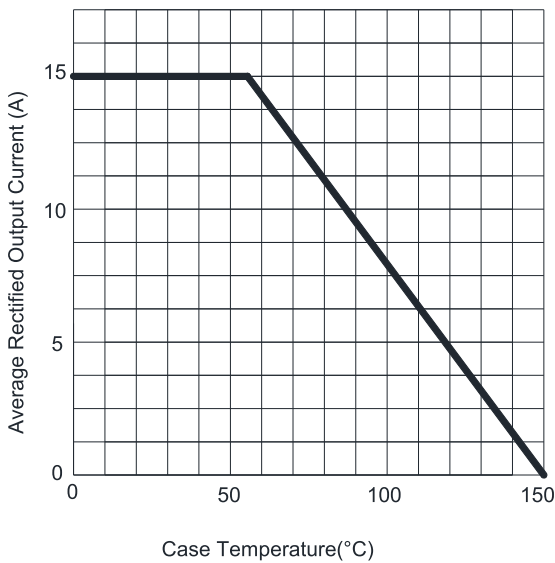


FIG2:Surge Forward Current Capability

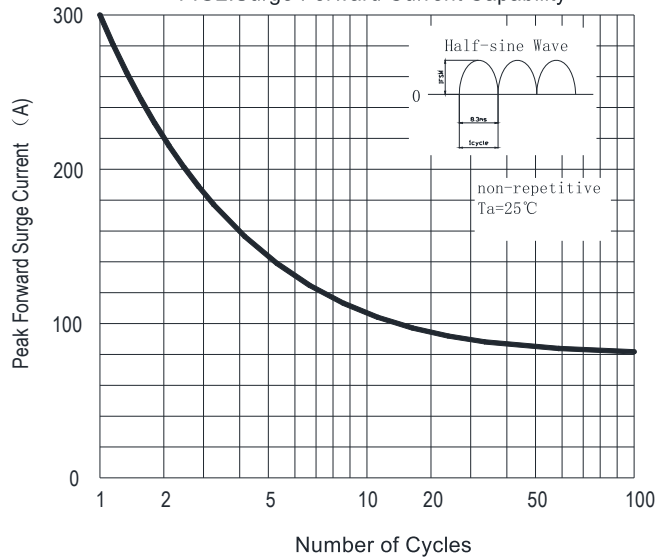


FIG3:Instantaneous Forward Voltage

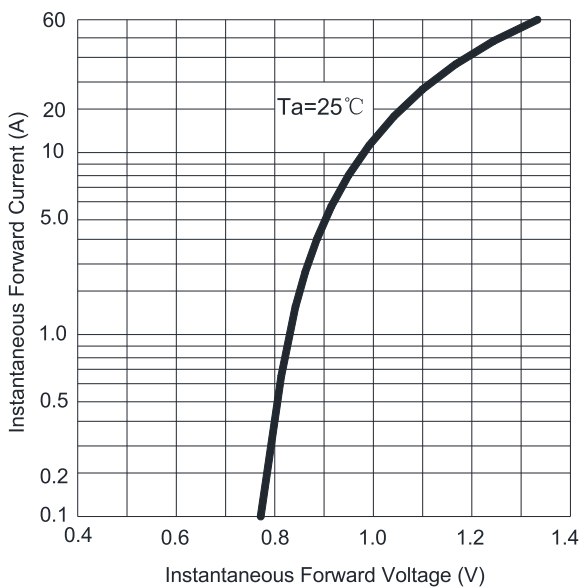
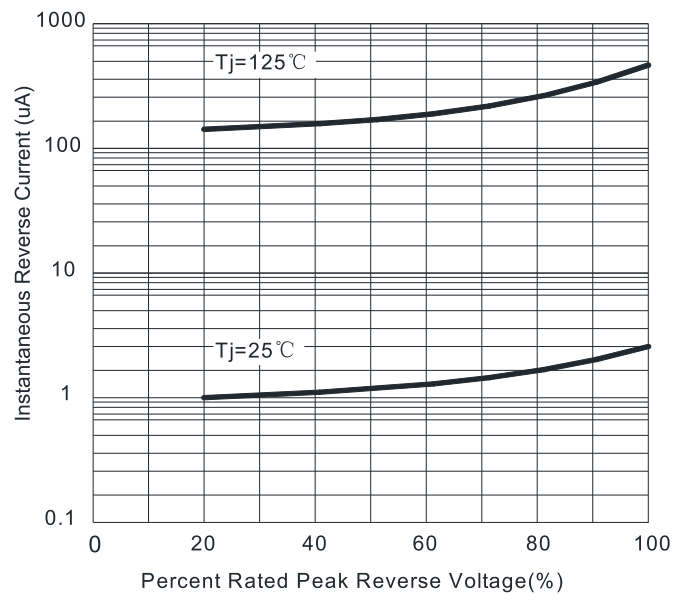
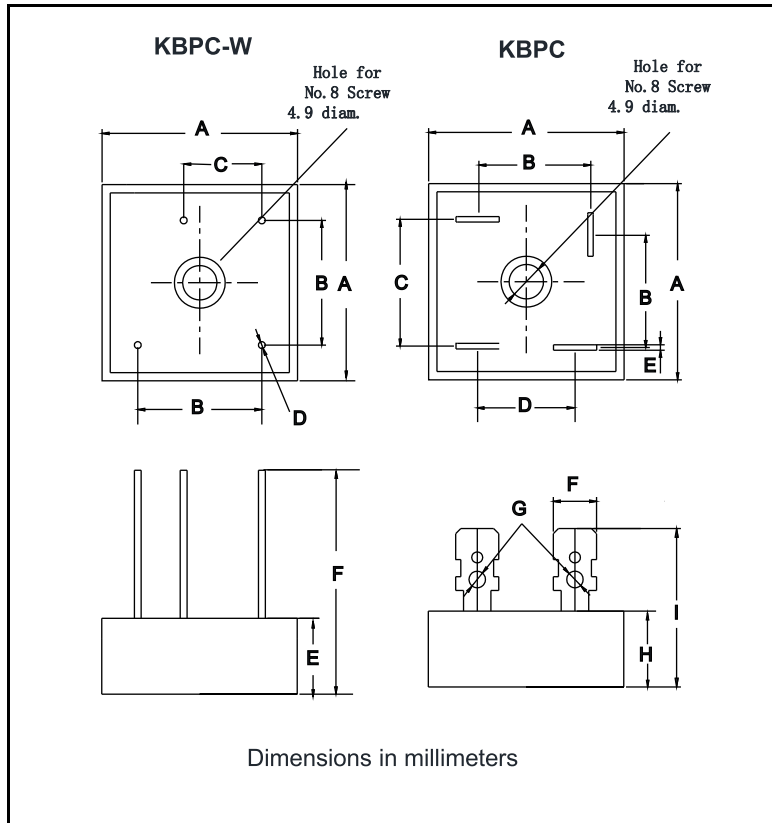


FIG4:Typical Reverse Characteristics



■ **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 | |