

Bridge Rectifiers

- FeaturesUL recognition, file #E230084
- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Solder dip 275 °C max. 7s, per JESD 22-B106

Typical Applications

The KBPC series of single phase rectifier bridge consists of four silicon junctions connected as a full bridge. These devices are intended for general use in industrial and consumer equipment.

Mechanical Date

- Package: KBPC8 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 | 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, Ta=40°C | IO | A | 15 | | | | | | |
| Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, Ta=25°C | IFSM | А | 220 | | | | | | |
| Current Squared Time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode | l ² t | A ² S | 200 | | | | | | |
| Storage Temperature | T _{stg} | °C | -55 ~+150 | | | | | | |
| Junction Temperature | Тј | °C | -55 ~+150 | | | | | | |

■ Electrical Characteristics (Ta=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 | V | I _{FM} =7.5A | | | | 1.1 | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RRM} | | | | 10 | | | |

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

| PA | RAMETER | SYMBOL | UNIT | KBPC15005 | KBPC1501 | KBPC1502 | KBPC1504 | KBPC1506 | KBPC1508 | KBPC1510 |
|-----------------------|------------------------------|--------|------|-----------|----------|----------|----------|----------|----------|----------|
| Thermal Resistance | Between junction and ambient | RθJ-A | °C/W | | | | 17 | | | |



Ordering Information (Example)

| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------------|-----------------|------------------|-------------------------|----------------------------|-------------------------------|---------------|
| KBPC15005~KBPC1510 | A1 | Approximate 4.75 | 200 | 200 | 2000 | Paper Box |

Characteristics (Typical)





60 Ta=25℃ 20 Instantaneous Forward Current (A) 10 5.0 1.0 0.5 0.2 0.1 0.6 0.8 1.2 1.4 1.0 Instantaneous Forward Voltage (V)

FIG3:Instantaneous Forward Voltage

FIG4:Typical Reverse Characteristics



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Outline Dimensions



| KBPC8 | | | | | | |
|-------|-------|-------|--|--|--|--|
| Dim | Min | Max | | | | |
| Α | 18.54 | 19.58 | | | | |
| В | 12.2 | 13.2 | | | | |
| С | 6.35 | 7.6 | | | | |
| D | 15.0 | / | | | | |
| E | 1.2 | 1.3 | | | | |
| F | 3.8 | 4.2 | | | | |

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