

KBPC300 – KBPC310

3.0A SINGLE PHASE BRIDGE RECTIFIER



Features

- **Diffused Junction** •
- **High Current Capability**
- **High Case Dielectric Strength**
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has UL Flammability 94V-0
- Recognized File # E157705

Mechanical Data

- Case: KBPC-3, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 3.8 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 0.8 N.m Max.
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4





| KBPC-3 | | | | | |
|----------------------|-------------------|--------|--|--|--|
| Dim | Min | Max | | | |
| Α | 14.70 | 15.75 | | | |
| в | 5.80 6.90 | | | | |
| С | 15.00 — | | | | |
| D | 0.76 Ø Typical | | | | |
| E | 1.70 | 2.72 | | | |
| G | Hole for #6 screw | | | | |
| 9 | 3.60 Ø | 4.00 Ø | | | |
| Н | 10.30 | 11.30 | | | |
| All Dimensions in mm | | | | | |

Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | KBPC 300 | KBPC 301 | KBPC 302 | KBPC 304 | KBPC 306 | KBPC 308 | KBPC 310 | Unit |
|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | Vrrm Vrwm Vr | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | VR(RMS) | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note 1) $@T_c = 60^{\circ}C$ Average Rectified Output Current (Note 2) $@T_A = 25^{\circ}C$ | lo | | | | 3.0 2.0 | | | | А |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | IFSM | | | | 50 | | | | A |
| Forward Voltage per leg $@I_F = 1.5A$ | Vfm | | | | 1.1 | | | | V |
| Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 125^{\circ}C$ | Irm | | | | 5.0 500 | | | | μA |
| I ² t Rating for Fusing (t < 8.3ms) | l ² t | | | | 15 | | | | A ² s |
| Typical Junction Capacitance (Note 3) | Сл | | | | 21 | | | | pF |
| Thermal Resistance Junction to Ambient (Note 1) Thermal Resistance Junction to Case (Note 1) | R ja R jc | | | | 12 8.0 | | | | °C/W |
| RMS Isolation Voltage Terminals to Case, t = 1min | Viso | | | | 1500 | | | | V |
| Operating and Storage Temperature Range | TJ, TSTG | | | -{ | 55 to +15 | 50 | | | °C |

Note: 1. Mounted on 105 x 105 x 3.0mm thick Al. heatsink.

Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.
Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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MARKING INFORMATION



PACKAGING INFORMATION

BULK

| Inner Box Size | Quantity | Carton Size | Quantity | Approx. Gross Weight |
|----------------|----------|-----------------|----------|----------------------|
| L x W x H (mm) | (PCS) | L x W x H (mm) | (PCS) | (KG) |
| 198 x 198 x 50 | 200 | 425 x 215 x 280 | 2,000 | |

Note: 1. Paper box, white or brown color.



| Product No. | Package Type | Shipping Quantity |
|-------------|---------------|-------------------|
| KBPC300 | Square Bridge | 200 Units/Box |
| KBPC301 | Square Bridge | 200 Units/Box |
| KBPC302 | Square Bridge | 200 Units/Box |
| KBPC304 | Square Bridge | 200 Units/Box |
| KBPC306 | Square Bridge | 200 Units/Box |
| KBPC308 | Square Bridge | 200 Units/Box |
| KBPC310 | Square Bridge | 200 Units/Box |

ORDERING INFORMATION

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

 To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC300-LF.

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