



Micro Commercial Components

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# KBP2005 THRU KBP210

## 2 Amp Bridge Rectifier 50 to 1000 Volts

### Features

- Lead: Silver Plated Cooper Lead
- Electrically isolated base 1800Volts
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)
- Lead: Silver Plated Cooper Lead
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- UL Recognized File # E165989

### Maximum Ratings

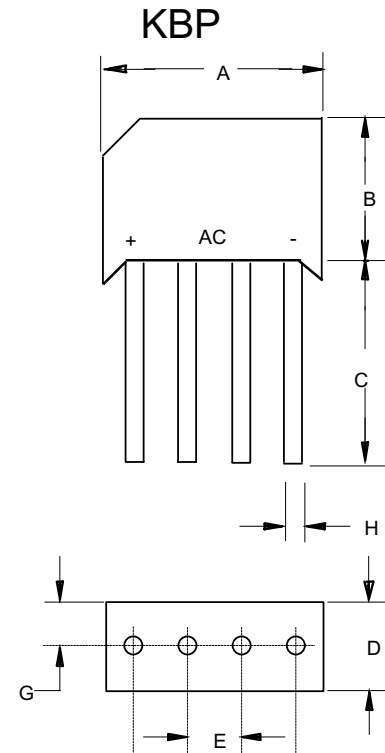
- Marking: Type Number
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- I<sup>2</sup>t Rating for Fusing(t<8.3ms): 10 A<sup>2</sup>s

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| KBP2005            | KBP2005        | 50V                                    | 35V                 | 50V                         |
| KBP201             | KBP201         | 100V                                   | 70V                 | 100V                        |
| KBP202             | KBP202         | 200V                                   | 140V                | 200V                        |
| KBP204             | KBP204         | 400V                                   | 280V                | 400V                        |
| KBP206             | KBP206         | 600V                                   | 420V                | 600V                        |
| KBP208             | KBP208         | 800V                                   | 560V                | 800V                        |
| KBP210             | KBP210         | 1000V                                  | 700V                | 1000V                       |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |                    |             |   |
|---|--------------------|-------------|---|
| Average Forward Current                                 | I <sub>F(AV)</sub> | 2.0A        | T <sub>A</sub> = 55°C   |
| Peak Forward Surge Current                              | I <sub>FSM</sub>   | 50A         | 8.3ms, half sine  |
| Maximum Forward Voltage Drop Per Element                | V <sub>F</sub>     | 1.1V        | I <sub>FM</sub> = 1.0A per element;<br>T <sub>A</sub> = 25°C (Note 2) |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I <sub>R</sub>     | 10µA<br>1mA | T <sub>J</sub> = 25°C<br>T <sub>J</sub> = 100°C                       |

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7  
 2. Pulse Test: Pulse Width 300µsec, Duty Cycle 1%



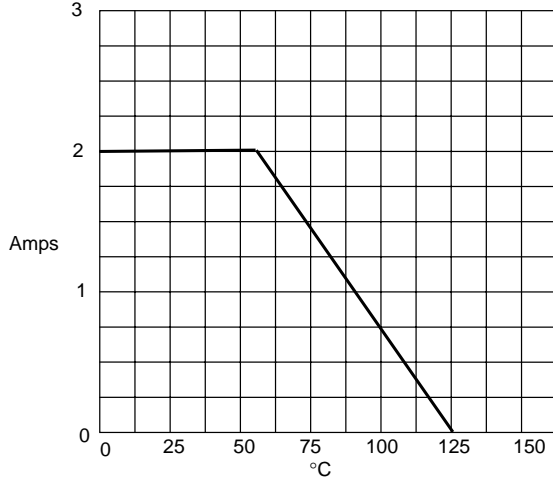
| DIM | INCHES |      | MM    |       | NOTE    |
|-----|--------|------|-------|-------|---------|
|     | MIN    | MAX  | MIN   | MAX   |         |
| A   | ---    | .693 | ---   | 17.60 |         |
| B   | ---    | .504 | ---   | 12.80 |         |
| C   | .750   | ---  | 19.00 | ---   |         |
| D   | ---    | .250 | ---   | 6.40  |         |
| E   | .150   | ---  | 3.80  | ---   | 3PL/TYP |
| G   | .125   | ---  | 3.20  | ---   |         |
| H   | ---    | .320 | ---   | 0.80  |         |

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Figure 1  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Fig. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

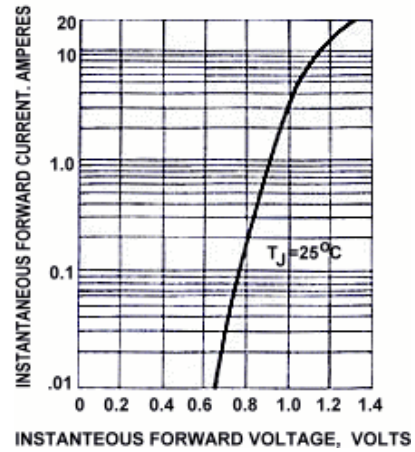


Fig. 3 - TYPICAL FORWARD CHARACTERISTICS

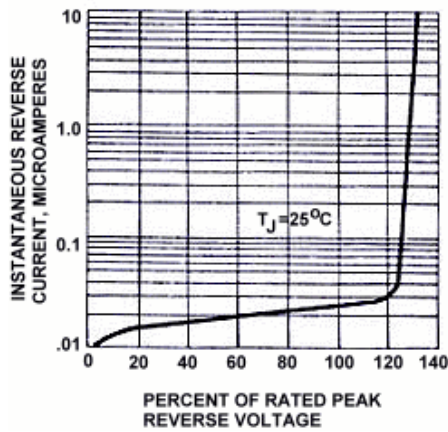
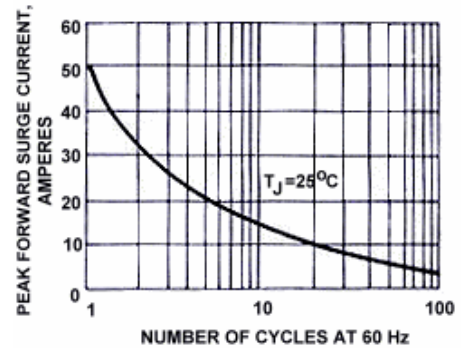


Fig. 4 - MAXIMUM FORWARD SURGE CURRENT





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## Ordering Information

|                            |                            |
|----------------------------|----------------------------|
| Device<br>(Part Number)-BP | Packing<br>Bulk;600pcs/Box |
|----------------------------|----------------------------|

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