

**NOT RECOMMENDED FOR NEW DESIGNS**  
**USE KBP3005G-BP~KBP310G-BP Series**



Micro Commercial Components



Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phon : (818) 701-4933  
 F x: (818) 701-493

**KBP3005**  
**THR**  
**KBP310**

## Features

- Surge overload ratings 80 amperes peak
- Lead: Matte Tin Plated Copper Lead
- Ideal for printed circuit board
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Marking: Type Number
- I<sup>2</sup>t Rating for Fusing(t<8.3ms): 50 A<sup>2</sup>s
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

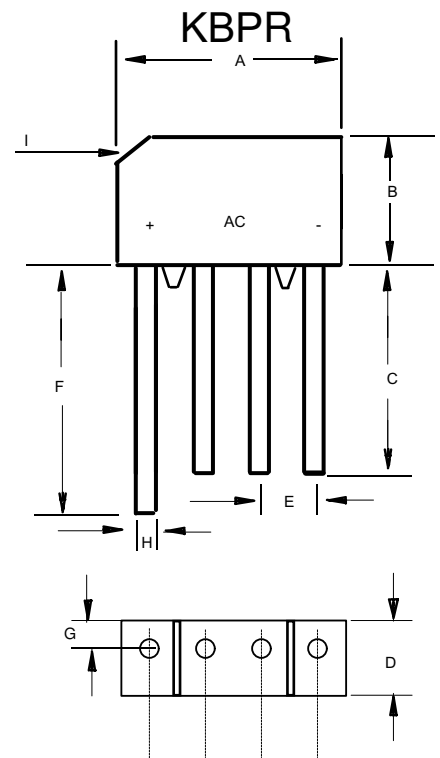
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| KBP3005            | KBP3005        | 50V                                    | 35V                 | 50V                         |
| KBP301             | KBP301         | 100V                                   | 70V                 | 100V                        |
| KBP302             | KBP302         | 200V                                   | 140V                | 200V                        |
| KBP304             | KBP304         | 400V                                   | 280V                | 400V                        |
| KBP306             | KBP306         | 600V                                   | 420V                | 600V                        |
| KBP308             | KBP308         | 800V                                   | 560V                | 800V                        |
| KBP310             | KBP310         | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |                    |             |   |
|---|--------------------|-------------|---|
| Average Forward Current                                 | I <sub>F(AV)</sub> | 3.0A        | T <sub>A</sub> = 55°C   |
| Peak Forward Surge Current                              | I <sub>FSM</sub>   | 80A         | 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%

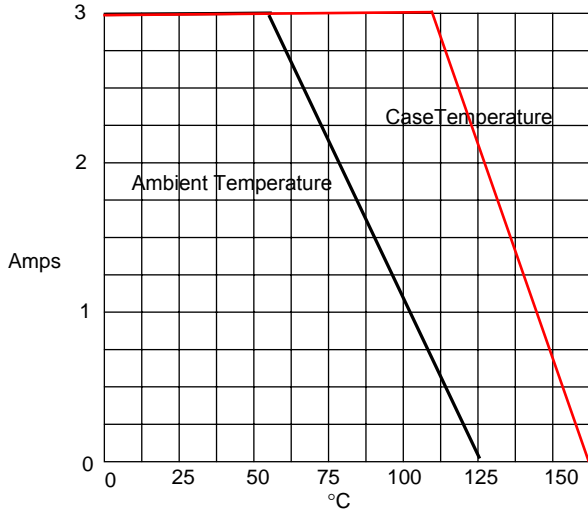
**3 Amp**  
**Bridge Rectifier**  
**50 to 1000 Volts**



| DIM | DIMENSION |      |        |       | NOTE |
|-----|-----------|------|--------|-------|------|
|     | INCHES    |      | MM     |       |      |
| A   | .560      | .600 | 14.32  | 15.24 |      |
| B   | .420      | .460 | 10.70  | 11.70 |      |
| C   | .500      | ---  | 12.70  | ---   |      |
| D   | .132      | .144 | 3.35   | 3.65  |      |
| E   | .140      | .160 | 3.60   | 4.10  |      |
| F   | .600      | ---  | 15.24  | ---   |      |
| G   | .035      | .047 | 0.90   | 1.20  |      |
| H   | .028      | .034 | 0.70   | 0.90  |      |
| I   | 0.12X45   |      | 3.0X45 |       |      |

# KBP3005 THRU KBP310

Figure 1  
Forward Derating Curve



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

Fig. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

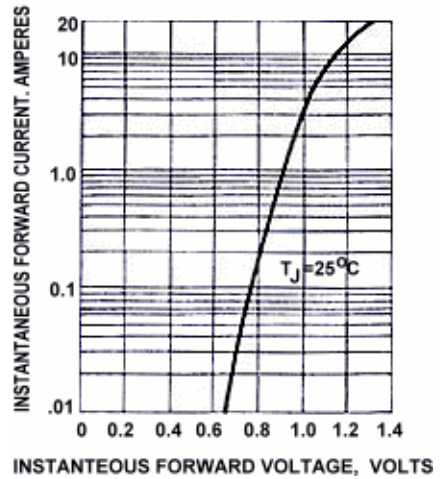


Fig. 3 - TYPICAL FORWARD CHARACTERISTICS

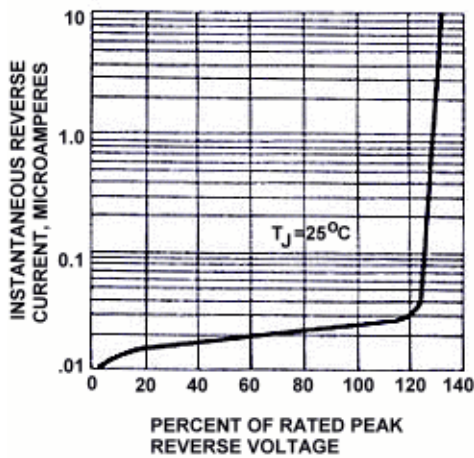
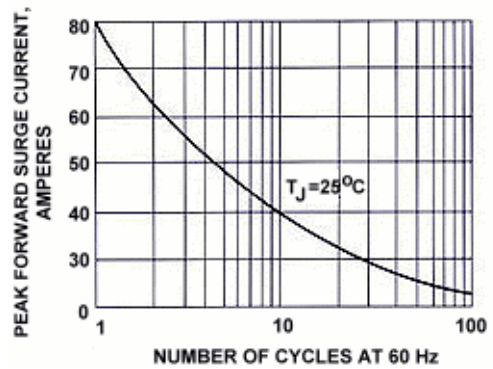


Fig. 4 - MAXIMUM FORWARD SURGE CURRENT





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Ordering Information :

| Device         | Packing            |
|----------------|--------------------|
| Part Number-BP | Bulk: 5Kpcs/Carton |

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