



Micro Commercial Components



Micro Commercial Components  
20736 Marilla Street Chatsworth  
CA 91311  
Phone: (818) 701-4933  
Fax: (818) 701-4939

# KBP3005G THRU KBP310G

## 3 Amp Bridge Rectifier 50 to 1000 Volts

### Features

- Surge overload ratings 80 amperes peak
- High Reliability
- Ideal for printed circuit board
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

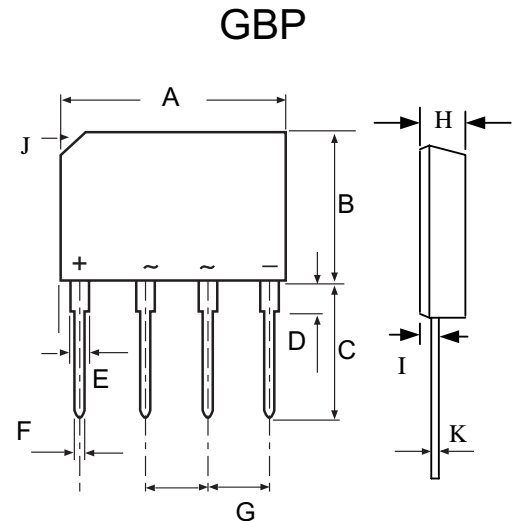
### Maximum Ratings

- I<sup>2</sup>t Rating for Fusing(t<8.3ms): 26 A<sup>2</sup>s
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

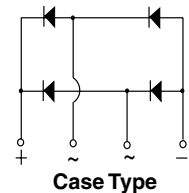
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
KBP3005G	KBP3005G	50V	35V	50V
KBP301G	KBP301G	100V	70V	100V
KBP302G	KBP302G	200V	140V	200V
KBP304G	KBP304G	400V	280V	400V
KBP306G	KBP306G	600V	420V	600V
KBP308G	KBP308G	800V	560V	800V
KBP310G	KBP310G	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; T <sub>A</sub> = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	10µA 1mA	T <sub>J</sub> = 25°C T <sub>J</sub> = 100°C
Typical Thermal Resistance(note 2)	R <sub>thJA</sub> R <sub>thJL</sub>	30°C/W 11°C/W	



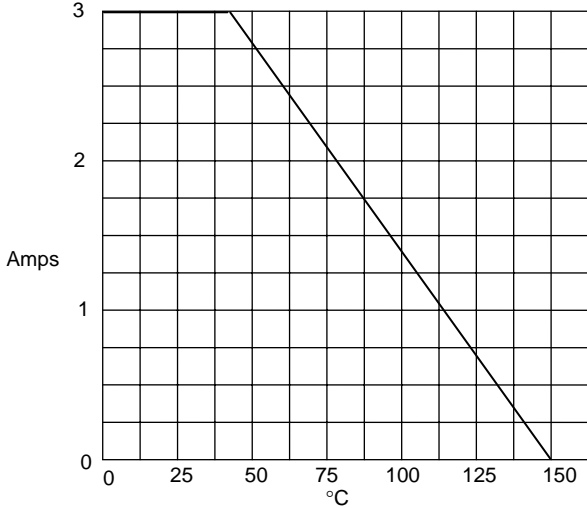
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.561	.580	14.25	14.75	
B	.410	.417	10.20	10.60	
C	.561	.581	14.25	14.73	
D	.090		2.29		
E	.046	.056	1.17	1.42	
F	.030	.034	0.76	0.86	
G	.140	.160	3.56	4.06	
H	.138	.161	3.50	4.10	
I	.045	.060	1.14	1.52	
J	.110 x45°		2.80x45°		
K	.012	.025	.300	.641	



Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7.

2. Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with, 0.59 X 0.59" (15 X 15mm) copper pads.

Figure 1  
Forward Derating Curve



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

Fig. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

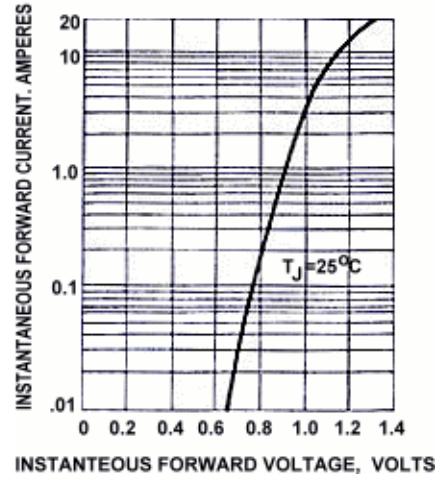


Fig. 3 - TYPICAL FORWARD CHARACTERISTICS

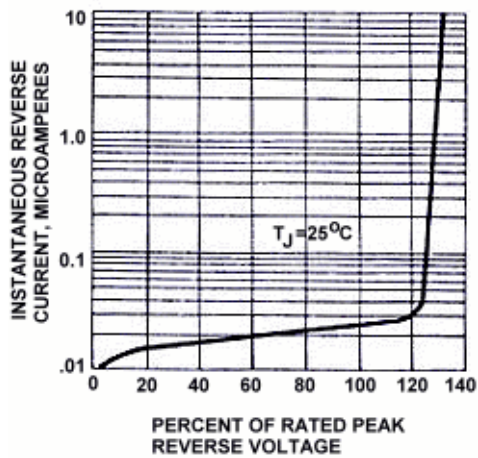
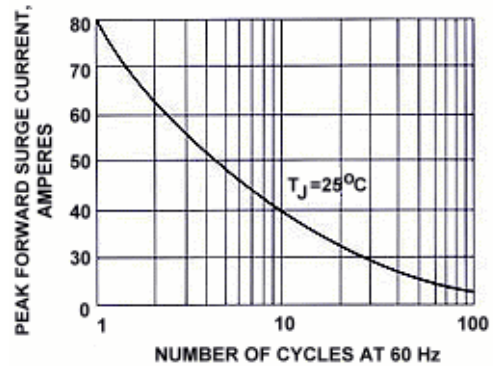


Fig. 4 - MAXIMUM FORWARD SURGE CURRENT





Micro Commercial Components

## Ordering Information

Device	Packing
(Part Number)-BP	Bulk: 1250pcs/Box;

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

[www.mccsemi.com](http://www.mccsemi.com)