

## Silicon Bridge Rectifiers

## KBP2005G--KBP210G

### FEATURES

- Rating to 1000V PRV
- Surge overload rating to 50 Amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208
- Plastic material has UL flammability classification 94V-O
- Glass passivated chip junctions



Lead-free

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

Characteristic	Symbol	KBP 2005G	KBP 201G	KBP 202G	KBP 204G	KBP 205G	KBP 206G	KBP 207G	KBP 208G	KBP 210G	UNITS
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	500	600	700	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	350	420	490	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	500	600	700	800	1000	V
Maximum average forward Output current @T <sub>A</sub> =25°C	I <sub>F(AV)</sub>	2.0									A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I <sub>FSM</sub>	50									A

### Thermal Characteristics

Characteristic	Symbol	KBP 2005G	KBP 201G	KBP 202G	KBP 204G	KBP 205G	KBP 206G	KBP 207G	KBP 208G	KBP 210G	UNITS
Thermal Resistance	R <sub>θJA</sub> R <sub>θJL</sub>	30 11									°C/W
Current squared time	I <sup>2</sup> t	20									A <sup>2</sup> s
Operating junction temperature range	T <sub>J</sub>	- 55 ---- + 125									°C
Storage temperature range	T <sub>STG</sub>	- 55 ---- + 150									°C

### Electrical Characteristics (@T<sub>A</sub> = 25°C unless otherwise specified)

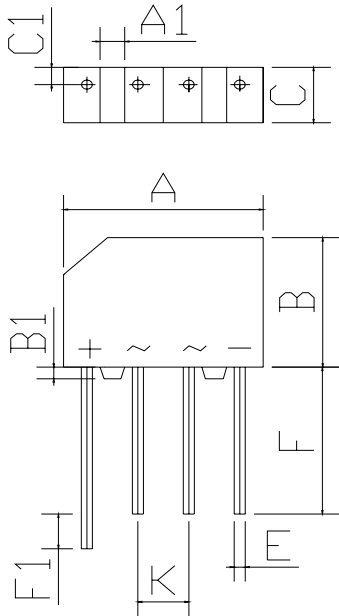
Characteristic	Symbol	KBP 2005G	KBP 201G	KBP 202G	KBP 204G	KBP 205G	KBP 206G	KBP 207G	KBP 208G	KBP 210G	UNITS
Maximum instantaneous forward voltage @2.0A	V <sub>F</sub>	1.1									V
Maximum reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =100°C	I <sub>R</sub>	10 1.0									μA mA



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**PACKAGE OUTLINE DIMENSIONS**



KBP		
Dim	Min	Max
A	14.50	14.90
A1	1.60 Typical	
B	11.10	11.50
B1	1.00 Typical	
C	4.70	5.10
C1	1.20 Typical	
E	Ø0.70	Ø0.90
F	13.00min	
F1	2.00min	
K	3.40	4.00
All Dimensions in mm		

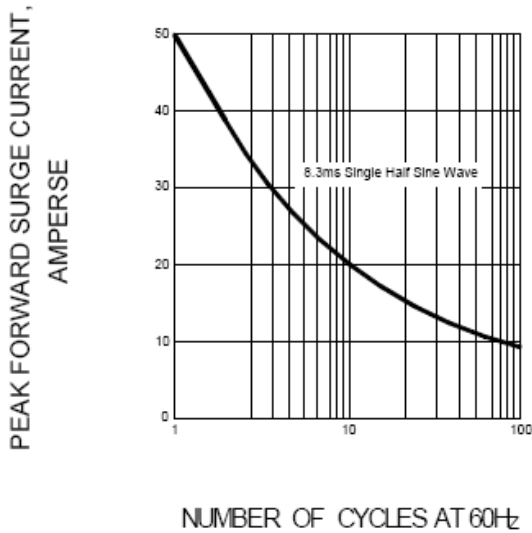
**PACKAGE INFORMATION**

Device	Package	Shipping
KBP2005G--KBP210G	KBP	500 Units/Box

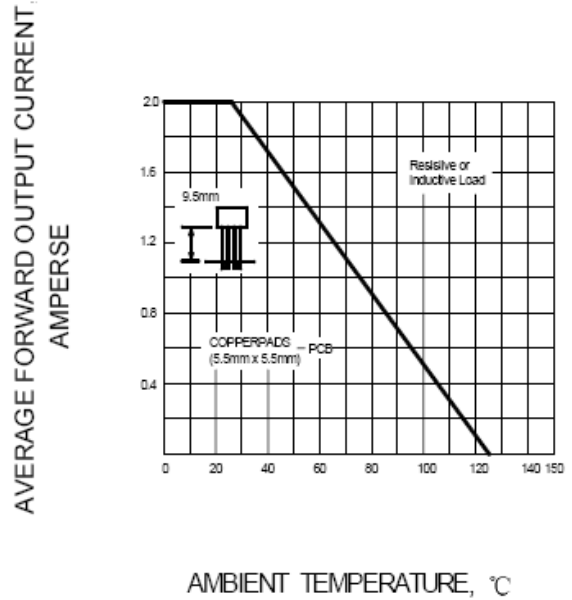
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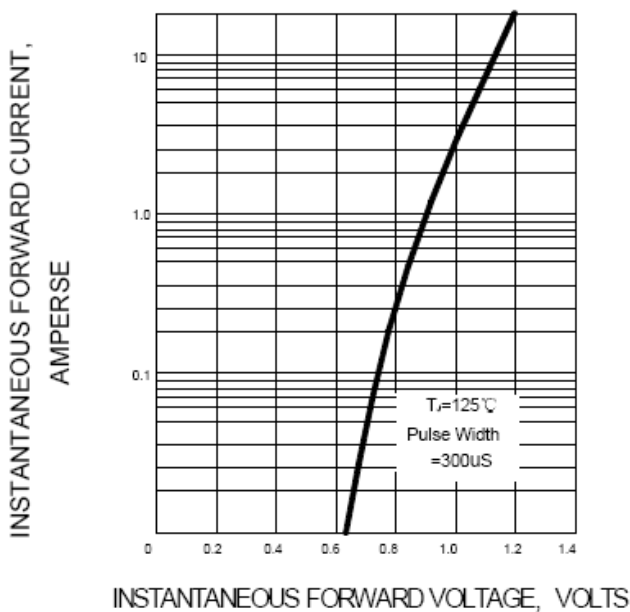
**FIG.1 -- PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE  
OUTPUT RECTIFIED CURRENT**



**FIG.3 -- TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

