

# KBP5005-KBP510/G

Single Phase 5.0Amp Glass passivated Bridge Rectifiers

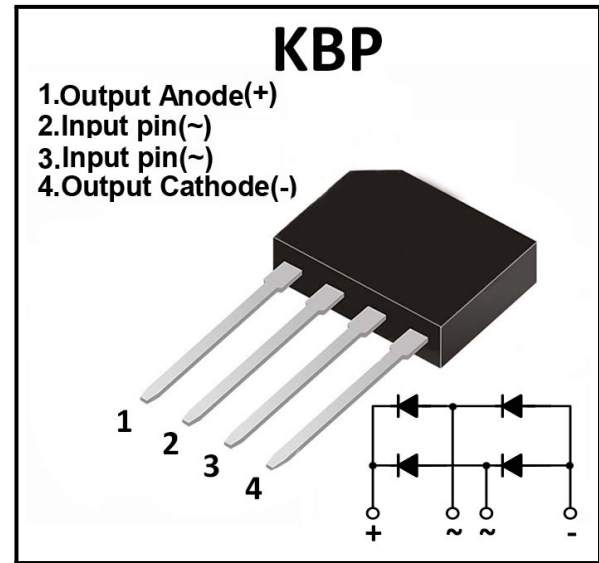
## Features

- Rating to 1000V PRV
- Idea for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- The G suffix is uses for photoresist chip, otherwise it is a knife scraping chip

## MECHANICAL DATA

- Polarity : As marked on body
- Weight : 0.05 ounces, 1.52 grams
- Mounting position : Any

## Mechanical Data



## Maximum Ratings And Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise noted)

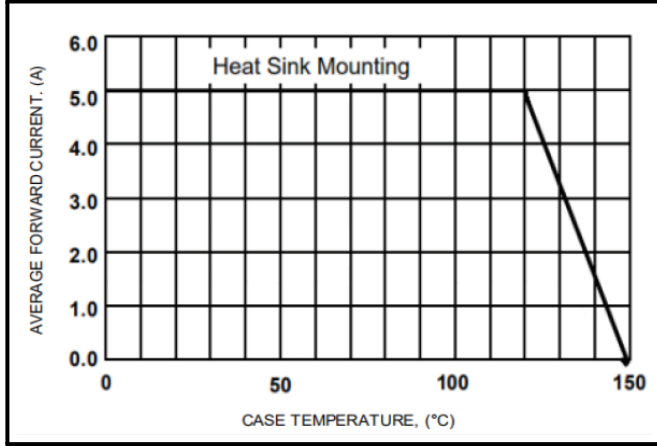
Symbol	Parameter	KBP 5005G	KBP 501G	KBP 502G	KBP 504G	KBP 506G	KBP 508G	KBP 510G	Unit	
V <sub>RRM</sub>	Maximum repetitive peak reverse voltage	50	100	200	400	600	800	1000	V	
V <sub>RMS</sub>	Maximum RMS voltage	35	70	140	280	420	560	700	V	
V <sub>DC</sub>	Maximum DC blocking voltage	50	100	200	400	600	800	1000	V	
I <sub>AV</sub>	Maximum Average Forward (With heatsink) Rectified Current @T <sub>C</sub> =105°C(Without heatsink)	5.0 2.5								A
I <sub>FSM</sub>	Peak Forward Surge Current @T <sub>J</sub> =25°C 8.3ms single half sine-wave @T <sub>J</sub> =125°C	150 120								A
V <sub>F</sub>	Maximum forward voltage at 4.0A DC	1.10								V
I <sub>R</sub>	Maximum DC reverse current @T <sub>J</sub> =25°C at rated DC blocking voltage @ T <sub>J</sub> =125°C	5.0 500								uA
I <sub>t</sub> <sup>2</sup>	I <sub>t</sub> <sup>2</sup> Rating for fusing (3ms≤t≤8.3ms)	59.76								A <sub>S</sub> <sup>2</sup>
C <sub>J</sub>	Typical junction capacitance (Note 1)	46								pF
R <sub>θJC</sub>	Typical thermal resistance(Unit mounted on 75mmx75mmx1.6mm Copper plate heatsink.)	3.0								°C/W
R <sub>θJC</sub>	Typical thermal resistance(without heatsink)	8.0								°C/W
T <sub>J</sub> , T <sub>STG</sub>	Operation and Storage Temperature Range	-55 to +150								°C

Note:(1)Measured at 1MHz and applied reverse voltage of 4.0V D.C.

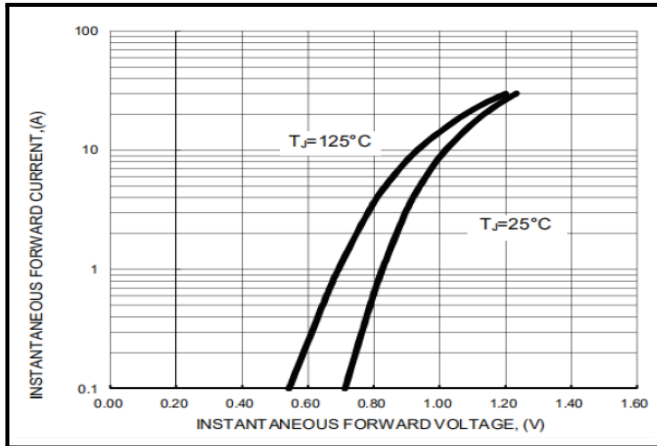


**Ratings And Characteristic Curves**

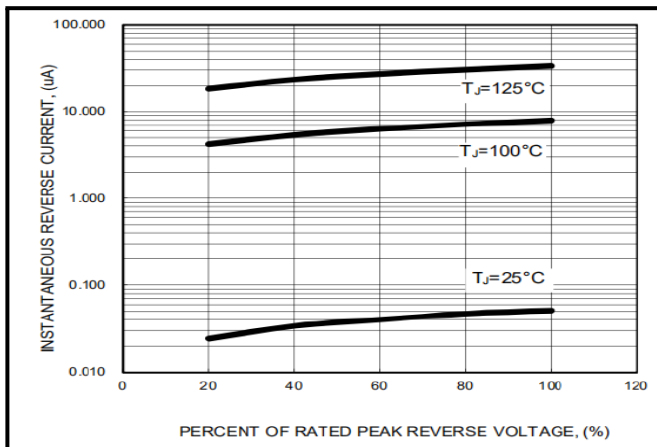
**Figure 1: FORWARD CURRENT DERATING CURVE**



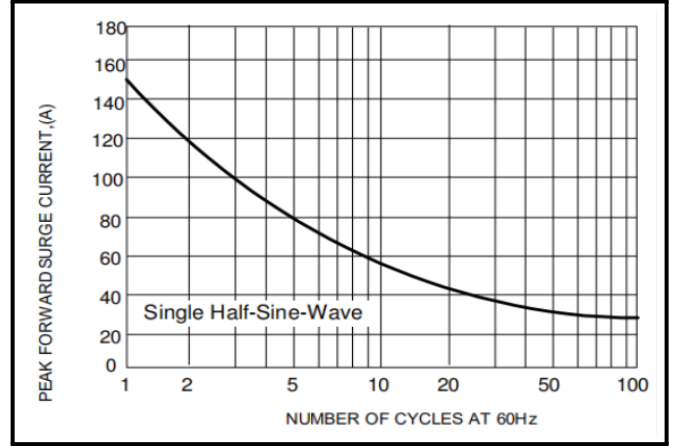
**Figure 3: TYPICAL JUNCTION CAPACITANCE**



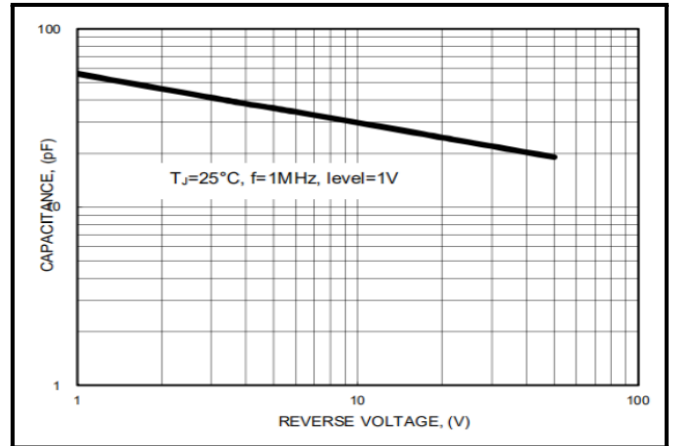
**Figure 5: TYPICAL REVERSE CHARACTERISTICS**



**Figure 2: MAXIMUM NON-REPETITIVE SURGE CURRENT**



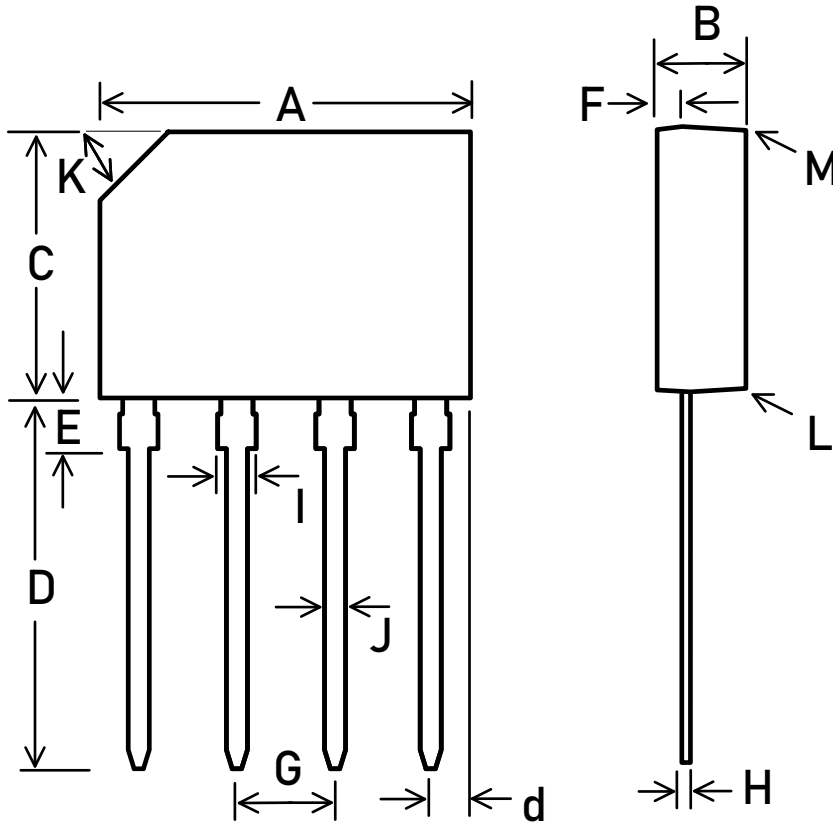
**Figure 4: TYPICAL FORWARD CHARACTERISTICS**



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Outline Drawing - KBP



SYMBOL	MILLIMETER	
	MIN.	MAX.
A	14.2	14.7
B	3.30	3.60
C	10.2	10.6
D	13.8	14.4
d	1.40	1.70
E	1.80	2.20
F	0.80	1.10
G	3.71	3.91
H	0.30	0.55
I	1.22	1.42
J	0.76	0.86
K	2.7 x 45°	
L	-	3°
M	-	2°

