

# KBP2005G THRU KBP210G

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 2.0A



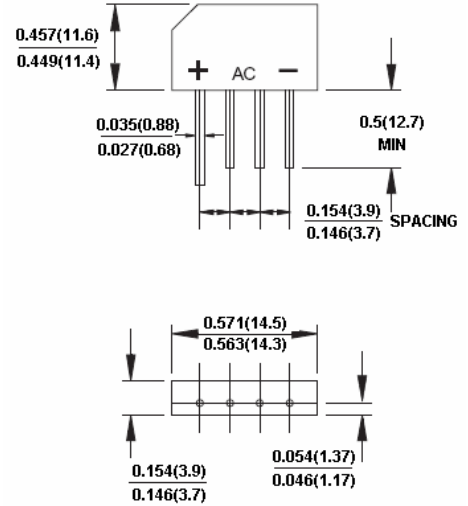
### Features

Glass passivated chip junction  
High case dielectric strength  
High surge current capability  
Ideal for printed circuit board

### Mechanical Data

Terminal: Plated leads solderable per MIL-STD 202E,  
Method 208C  
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: Polarity symbol marked on body  
Mounting position: any

### KBP



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated,  
for capacitive load, derate current by 20%)

	Symbol	KBP2 005G	KBP 201G	KBP2 02G	KBP2 04G	KBP 206G	KBP2 08G	KBP 210G	units
Maximum repetitive peak reverse voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current Ta = 55°C	I <sub>f(av)</sub>	2.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>	60							A
Maximum instantaneous forward voltage drop per leg at 2.0A	V <sub>f</sub>	1.1							V
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	15							A <sup>2</sup> Sec
Maximum DC reverse current at rated DC blocking voltage per leg Ta = 25°C Ta = 125°C	I <sub>r</sub>	5.0 500							μA
Maximum thermal resistance per leg (Note1)	R <sub>th(ja)</sub> R <sub>th(jc)</sub>	30 11							°C/W
Typical junction capacitance per leg at 4.0V, 1MHz	C <sub>j</sub>	25							pF
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150							°C

Note:

1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47 x 0.47" (12 x 12mm) copper pads

## RATINGS AND CHARACTERISTIC CURVES KBP2005G THRU KBP210G

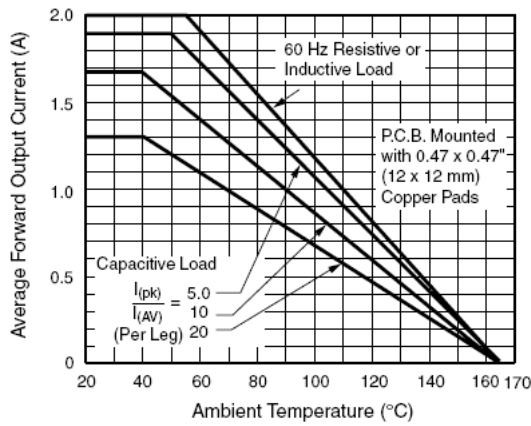


Figure 1. Derating Curve Output Rectified Current

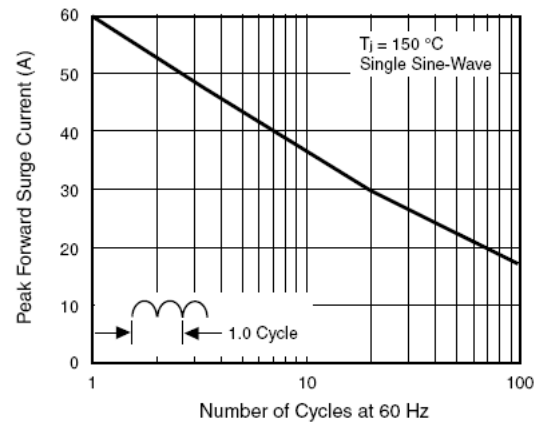


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

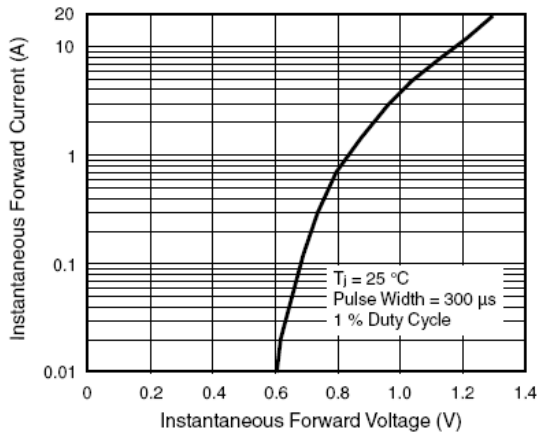


Figure 3. Typical Forward Characteristics Per Diode

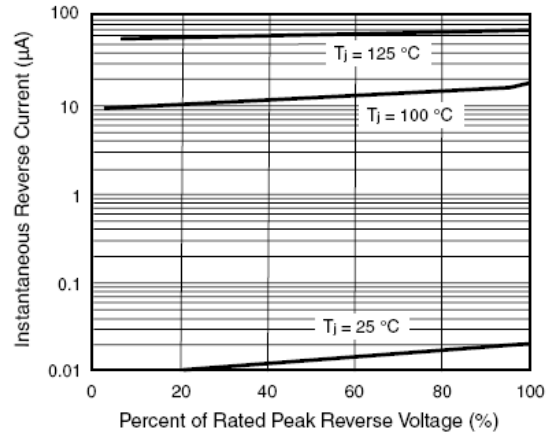


Figure 4. Typical Reverse Leakage Characteristics Per Diode

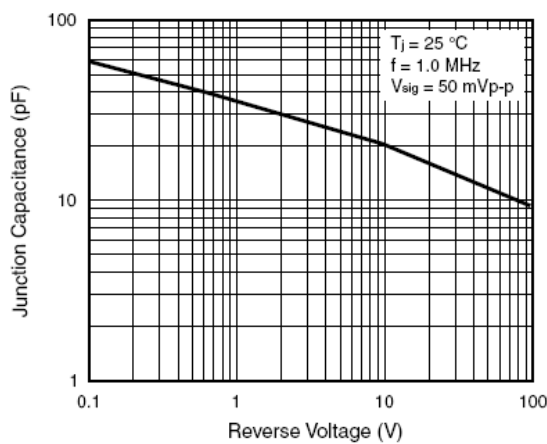


Figure 5. Typical Junction Capacitance Per Diode

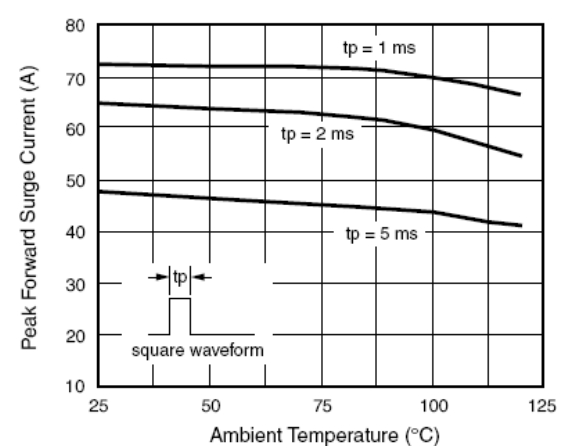


Figure 6. Non-Repetitive Peak Forward Surge Current Square Waveform

