

# KBP005G THRU KBP10G

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 1.5A



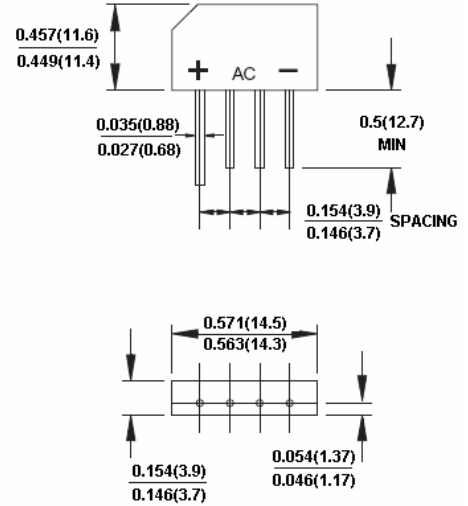
### Features

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	KBP 005G	KBP 01G	KBP 02G	KBP 04G	KBP 06G	KBP 08G	KBP 10G	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 = 40°C	I <sub>f(av)</sub>	1.5							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>	50							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	10							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
Typical Thermal Resistance (Note 1)	R <sub>th(ja)</sub>	25							°C/W
(Note 1)	R <sub>th(jl)</sub>	8.0							
(Note 2)	R <sub>th(jc)</sub>	10.0							
Typical junction capacitance per leg at 4.0V,1MHz	C <sub>j</sub>	15							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 0.4" × 0.4" (10×10mm)copper pads
2. Thermal Resistance from Junction to Case Mounted on heatsink

## RATINGS AND CHARACTERISTIC CURVES KBP005G THRU KBP10G

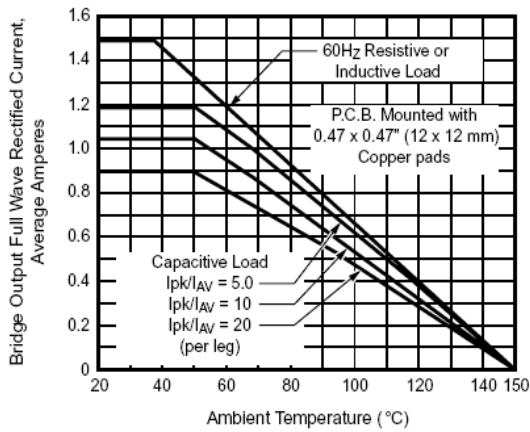


Figure 1. Derating Curve Output Rectified Current

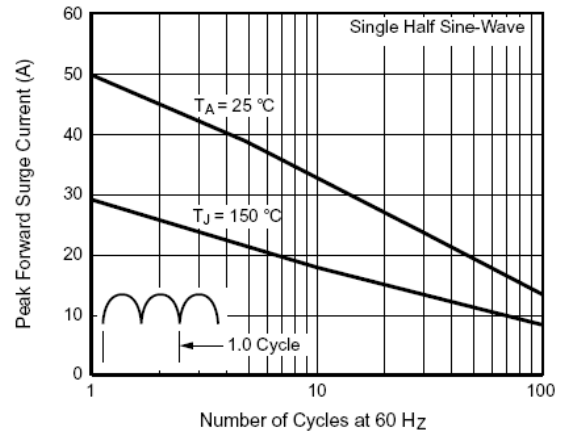


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

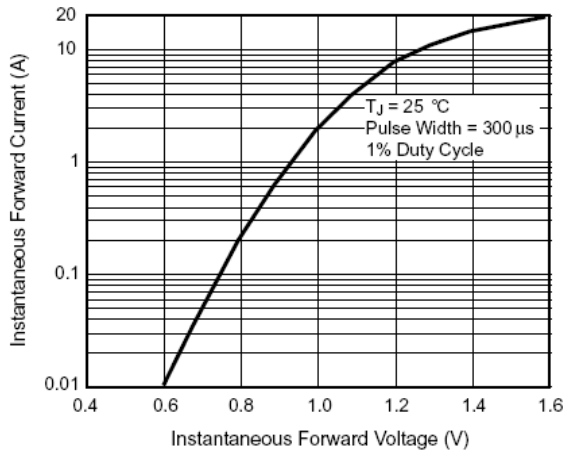


Figure 3. Typical Forward Characteristics Per Leg

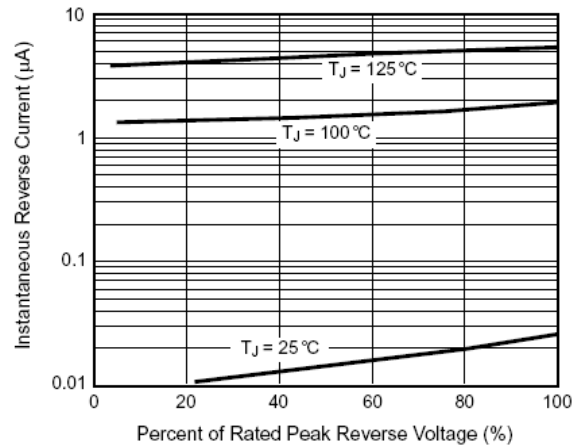


Figure 4. Typical Reverse Leakage Characteristics Per Leg

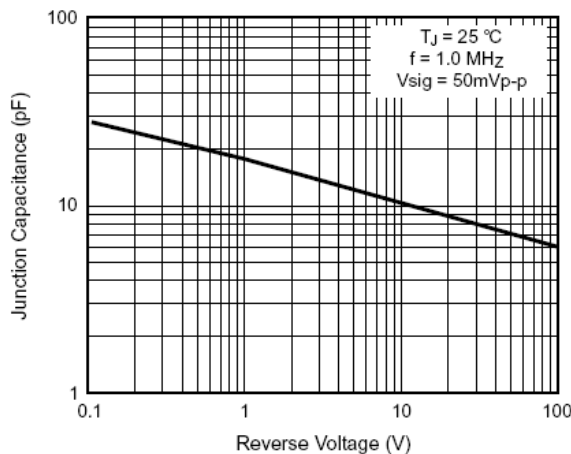


Figure 5. Typical Junction Capacitance Per Leg