



# KBP4005G THRU KBP410G

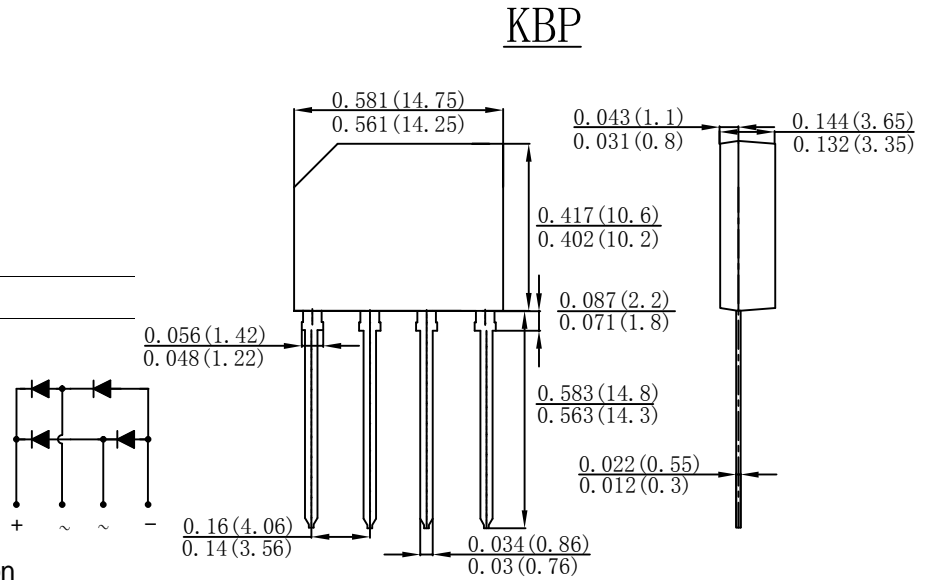
SINGLE PHASE 4.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

## Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

## Mechanical Data

- Case: KBP, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KBP 4005G	KBP 401G	KBP 402G	KBP 404G	KBP 406G	KBP 408G	KBP 410G	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (With heatsink) @T <sub>c</sub> =100°C (Note 1)	$I_{F(AV)}$				4.0				A
					2.0				
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$				120				A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t				59.76				A <sup>2</sup> s
Forward Voltage per element @IF=4.0A	$V_{FM}$				1.1				V
Peak Reverse Current @T <sub>J</sub> =25°C	$I_R$				5.0				uA
At Rated DC Blocking Voltage @T <sub>J</sub> =125°C					200				
Typical Junction Capacitance (Note2)	$C_j$				30				pF
Typical Thermal Resistance	$R_{\theta JA}$				40				°C/W
	$R_{\theta JL}$				20				
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>				-55to+150				°C

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



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Fig. 1 Forward Current Derating Curve

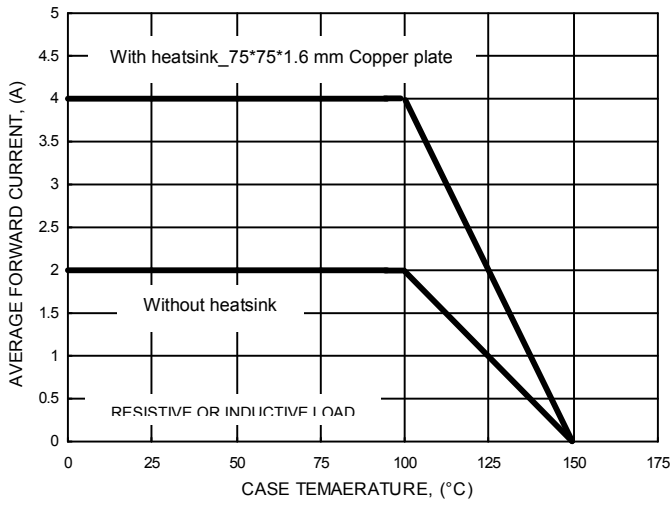


Fig. 2 Typical Fwd Characteristics

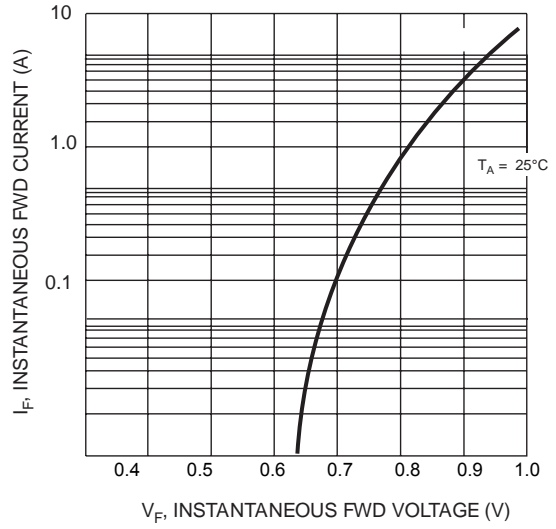


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

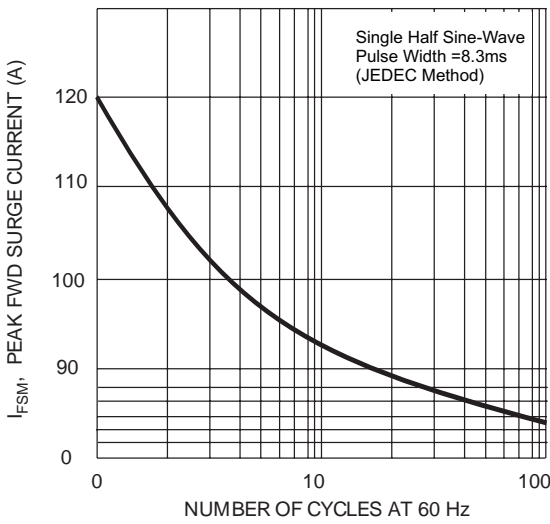


Fig. 4 Typical Junction Capacitance

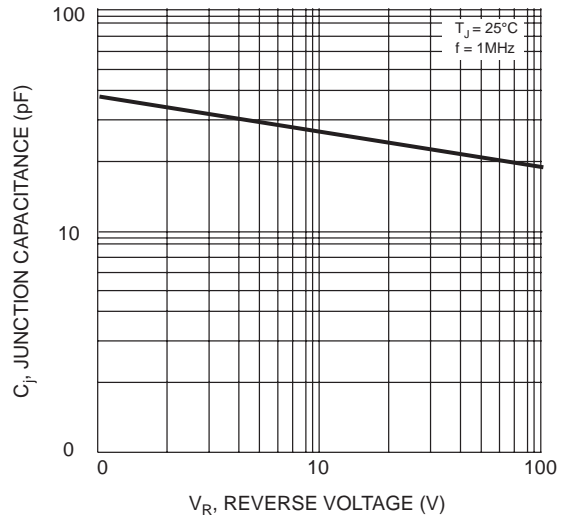
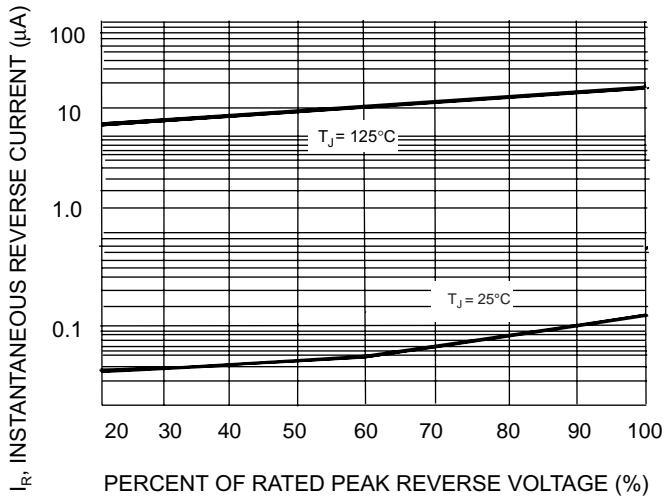


Fig. 5 Typical Reverse Characteristics (per element)





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