

### ■ Features

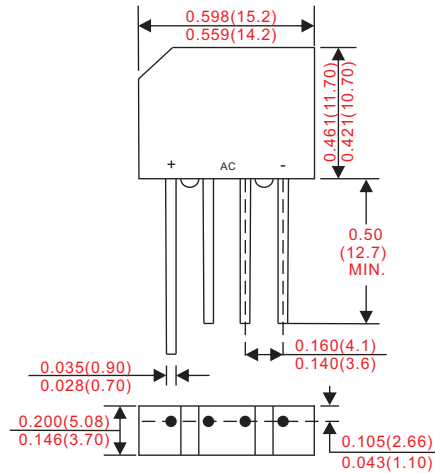
- Ideal for printed circuit board.
- High forward surge current capability.
- General purpose use in AC-TO-AC bridge full wave rectification for switching power supply, home, office equipment and telecommunication applications.
- Glass passivated chip junction.
- Suffix "G" indicates Halogen-free part, ex. KBP2005G.
- Lead-free parts meet RoHS requirements.

### ■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, KBP
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Weight : Approximated 1.7 gram

### ■ Outline

KBP



### ■ 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%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at TA = 30°C	I <sub>O</sub>			2.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I <sub>FSM</sub>			60	A
Reverse current	V <sub>R</sub> = V <sub>RRM</sub> T <sub>A</sub> = 25°C	I <sub>R</sub>			10	uA
	V <sub>R</sub> = V <sub>RRM</sub> T <sub>A</sub> = 125°C				500	
Current squared time	t < 8.3ms, T <sub>J</sub> = 25°C	I <sup>2</sup> t			15	A <sup>2</sup> S
Thermal resistance	junction to ambient	R <sub>BJA</sub>			30	°C/W
Storage temperature		T <sub>STG</sub>	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage V <sub>RRM</sub> (V)	Max. RMS voltage V <sub>RMS</sub> (V)	Max. DC blocking voltage V <sub>R</sub> (V)	Max. forward voltage @2A, T <sub>A</sub> = 25°C V <sub>F</sub> (V)	Operating temperature T <sub>J</sub> (°C)
KBP2005	KBP2005	50	35	50	1.1	-55 ~ +150
KBP201	KBP201	100	70	100		
KBP202	KBP202	200	140	200		
KBP204	KBP204	400	280	400		
KBP206	KBP206	600	420	600		
KBP208	KBP208	800	560	800		
KBP210	KBP210	1000	700	1000		

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

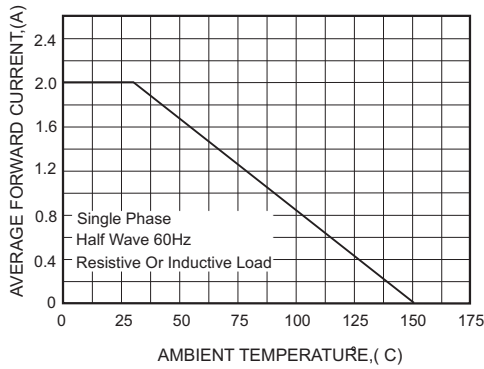


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

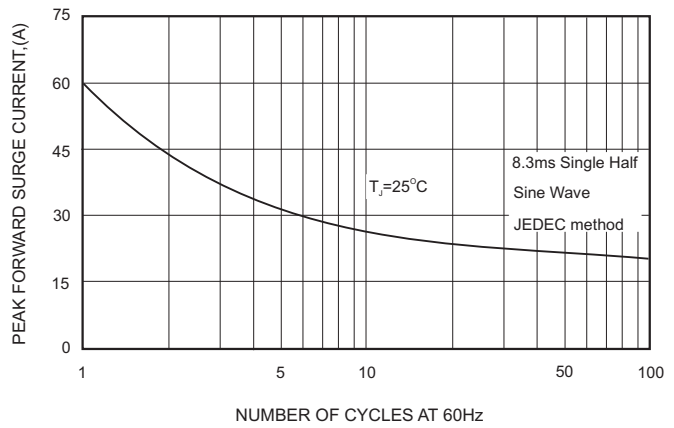


Fig. 3 - Typical Instantaneous Forward Characteristics (Per Leg)

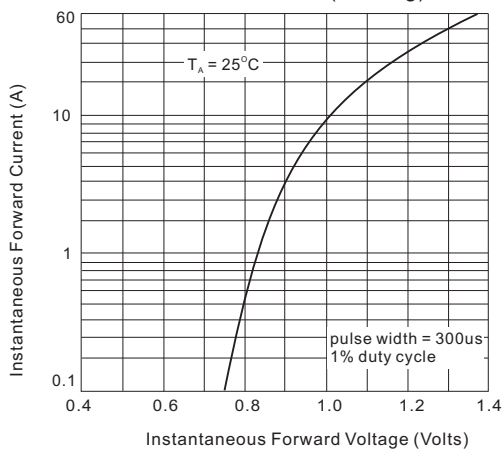
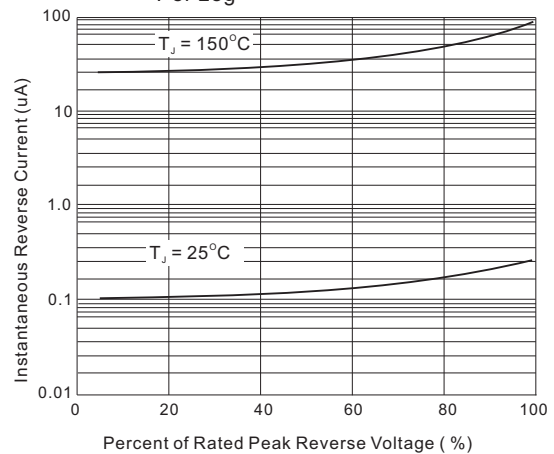


Fig. 4 - Typical Reverse Characteristics Per Leg



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