



# KBJ15005 THRU KBJ1510

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

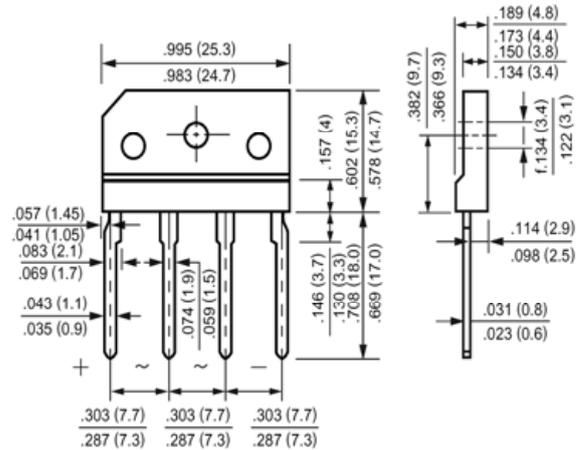
### FEATURES

- Glass passivated chip junction
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Reliable low cost construction utilizing molded plastic technique

### MECHANICAL DATA

Case: Molded plastic, KBJ  
 Epoxy: UL 94V-0 rate flame retardant  
 Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed  
 Mounting position: Any  
 Weight: 0.16ounce, 4.6gram

### KBJ



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

CHARACTERISTICS	SYMBOL	KBJ 15005	KBJ 1501	KBJ 1502	KBJ 1504	KBJ 1506	KBJ 1508	KBJ 1510	UNIT	
Maximum Recurrent 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 Current @ T <sub>c</sub> =100°C (without heatsink)	I <sub>(AV)</sub>	15.0							3.2	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	240								A
Maximum Forward Voltage at 7.5A DC	V <sub>F</sub>	1.1								V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =25°C @ T <sub>J</sub> =125°C	I <sub>R</sub>	10.0							500	uA
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	240								A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	60								pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>	0.8								°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150								°C

#### NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance from Junction to Case with Device Mounted on 75mm x 75mm x 1.6mmCu Plate Heatsink.





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### RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

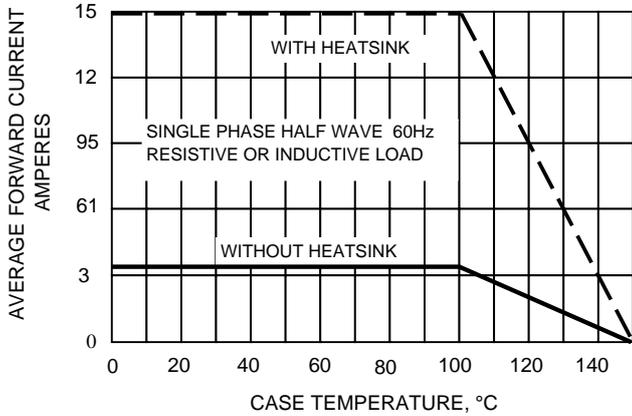


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

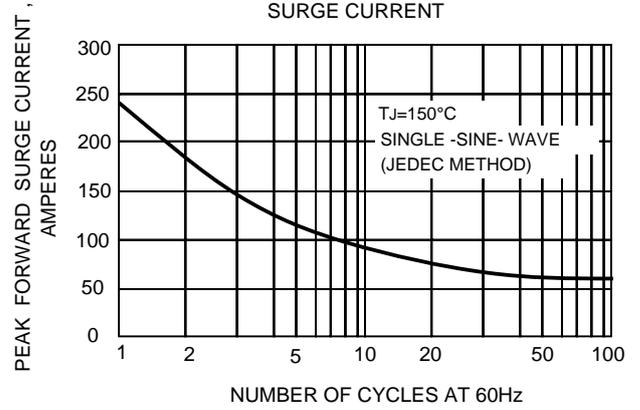


FIG.3-TYPICAL JUNCTION CAPACITANCE

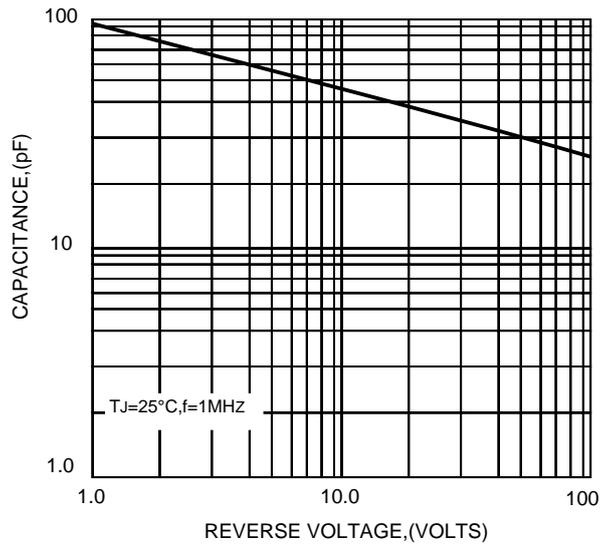


FIG.4-TYPICAL FORWARD CHARACTERISTICS

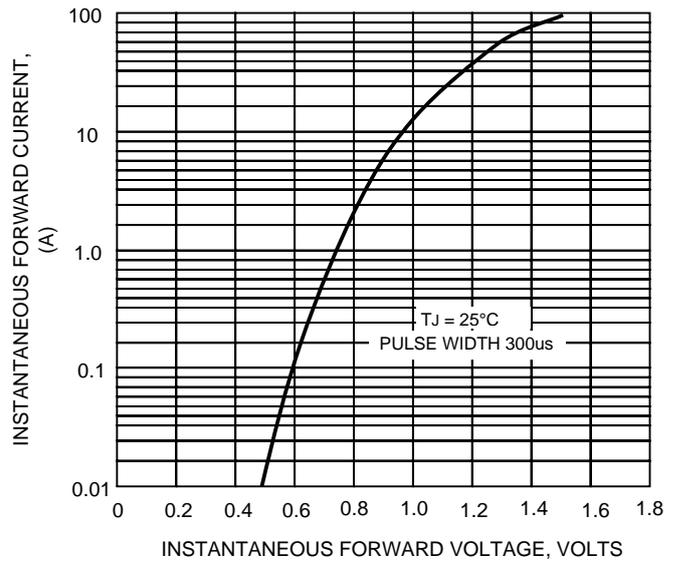


FIG.5-TYPICAL REVERSE CHARACTERISTICS

