



# KBJ4005 THRU KBJ410

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

## MECHANICAL DATA

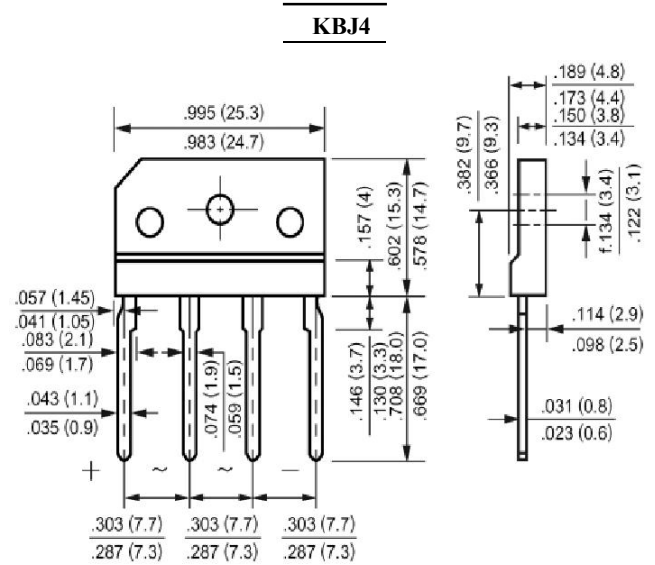
Case: Molded plastic, KBJ4

Epoxy: UL 94V-0 rate flame retardant

Terminals: Pure tin plated, lead free, Leads solderable per MIL-STD-202,method 208 guaranteed

Mounting position: As Marking

Weight: 4.21 gram



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%.

	Symbols	KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> =115°C	I <sub>(AV)</sub>	4.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	120							Amp
Maximum Forward Voltage at 2.0A DC and 25°C	V <sub>F</sub>	1.0							Volts
Maximum Reverse Current at T <sub>A</sub> =25°C at Rated DC Blocking Voltage T <sub>A</sub> =100°C	I <sub>R</sub>	5.0 500							uAmp
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	40							pF
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>	5.5							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , 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 1.6mm Cu Plate Heatsink.



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FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

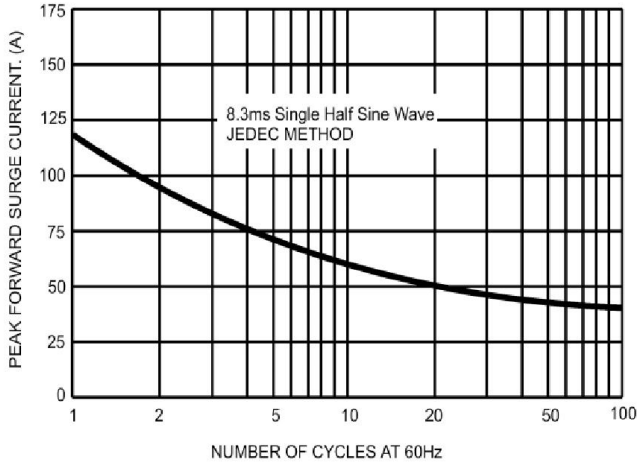


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE PER BRIDGE ELEMENT

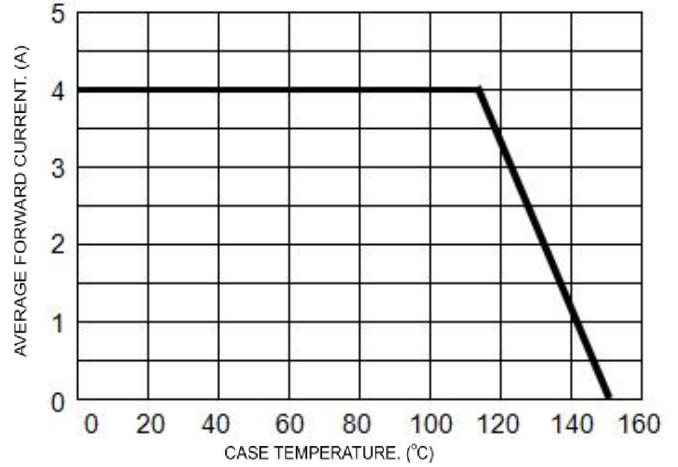


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

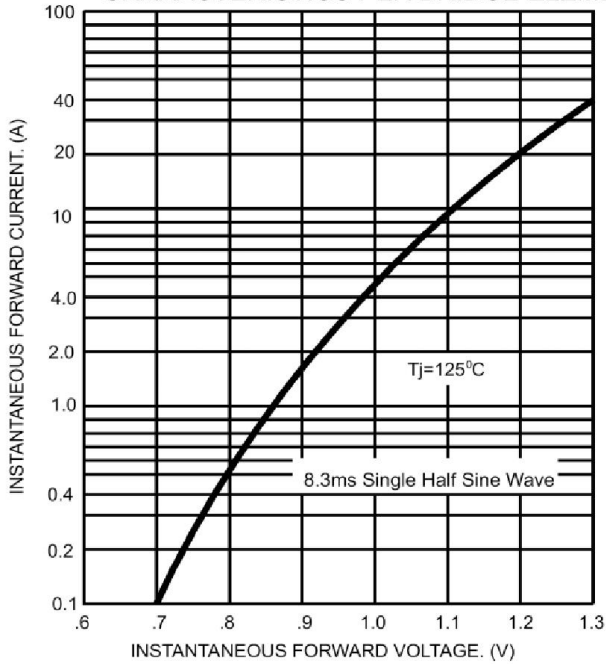


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

