



# DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**KBJ4A  
THRU  
KBJ4M**

## TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 4.0 Amperes

### FEATURES

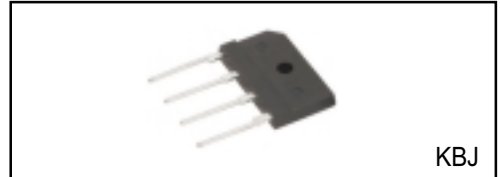
- \* Ideal for printed circuit board
- \* Surge overload rating: 120 Amperes peak

### MECHANICAL DATA

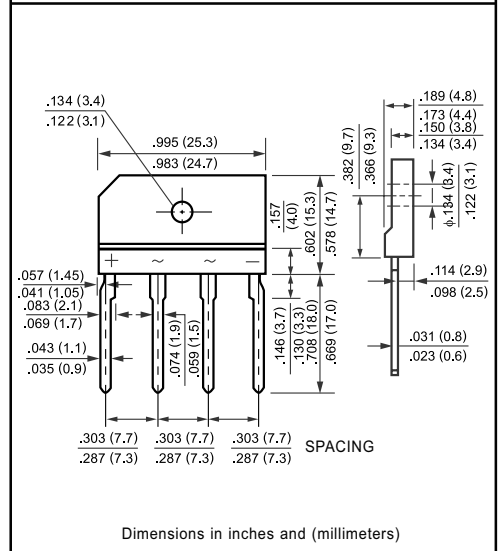
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 4.6 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



KBJ



	SYMBOL	KBJ4A	KBJ4B	KBJ4D	KBJ4G	KBJ4J	KBJ4K	KBJ4M	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at T <sub>c</sub> = 100 °C	I <sub>o</sub>	4.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	120							Amps
Maximum Forward Voltage Drop per element at 3.0A DC	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I <sub>R</sub>	@T <sub>A</sub> = 25 °C							uAmps
		@T <sub>A</sub> = 100 °C							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	93							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)	C <sub>J</sub>	40							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	19							°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 volts

2. Thermal Resistance from Junction to Case per element Unit mounted on 300x300x1.6mm Aluminum plate heat-sink.

# RATING AND CHARACTERISTIC CURVES (KBJ4A THRU KBJ4M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

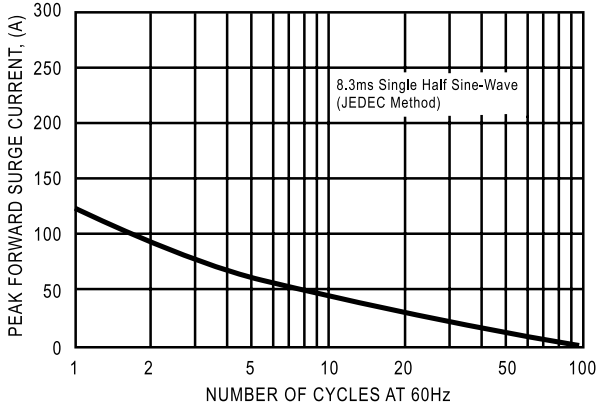


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

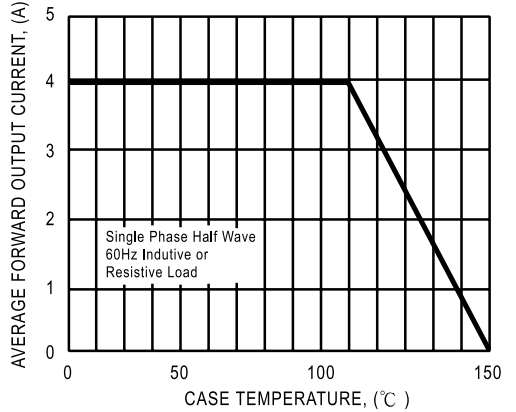


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

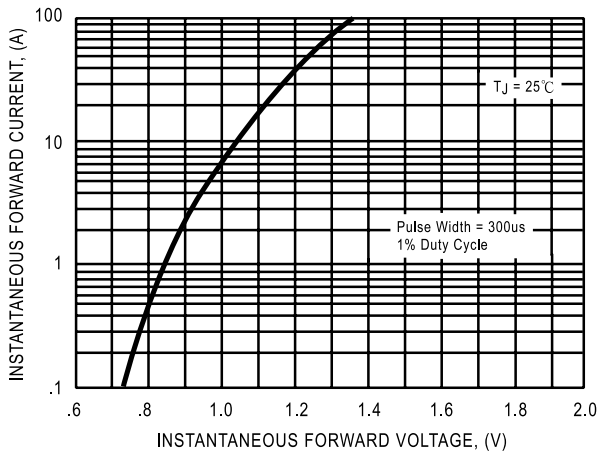
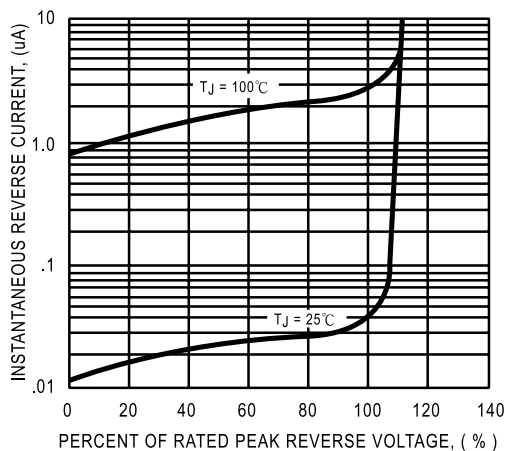


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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