



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**KBU10A  
THRU  
KBU10M**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**  
**VOLTAGE RANGE - 50 to 1000 Volts** **CURRENT - 10 Amperes**

**FEATURES**

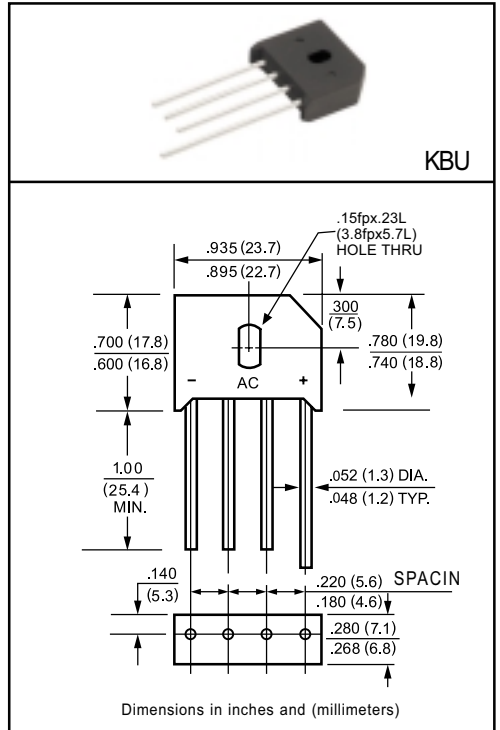
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating: 250 Amperes peak

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 4.8 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%.



	SYMBOL	KBU10A	KBU10B	KBU10D	KBU10G	KBU10J	KBU10K	KBU10M	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 Rectified Output Current at T <sub>c</sub> = 75°C	I <sub>o</sub>	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	250							Amps
Maximum Forward Voltage Drop per element at 5.0A DC	V <sub>F</sub>	1.1							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>C</sub> = 100°C							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	127							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)	C <sub>J</sub>	186							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	10							°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 volts  
 2. Thermal Resistance from Junction to Ambient and from junction to leadmounted on P.C.B. with 0.47 x 0.47" (12x12mm) copper pads.

# RATING AND CHARACTERISTIC CURVES

(KBU10A THRU KBU10M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

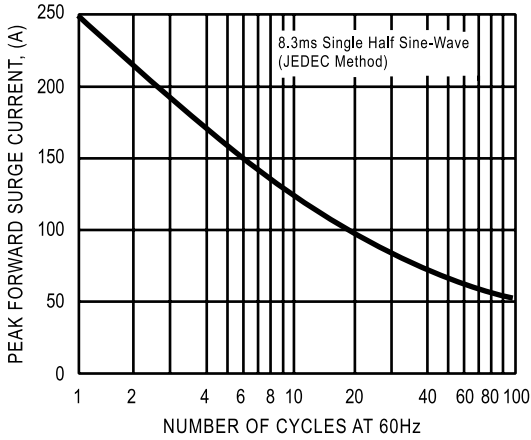


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

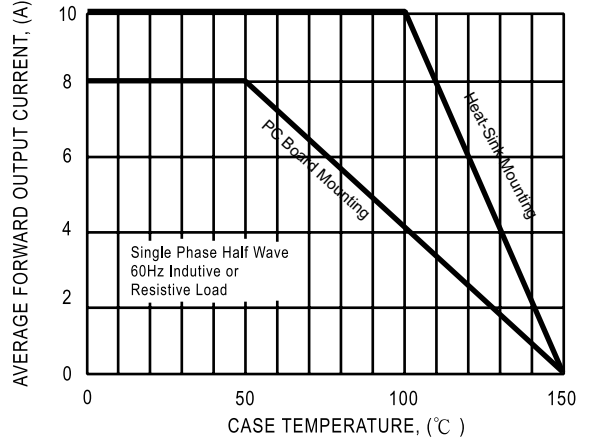


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

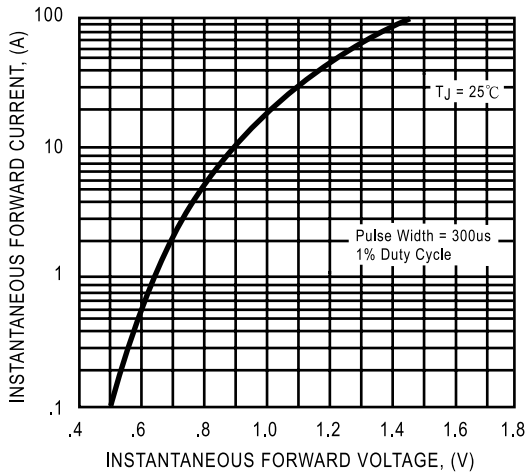
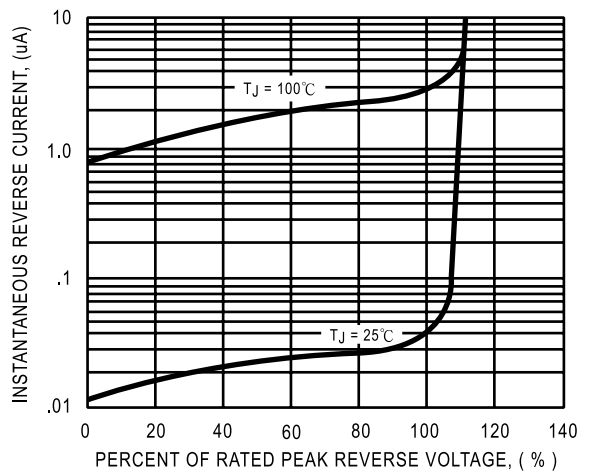


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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