



**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**

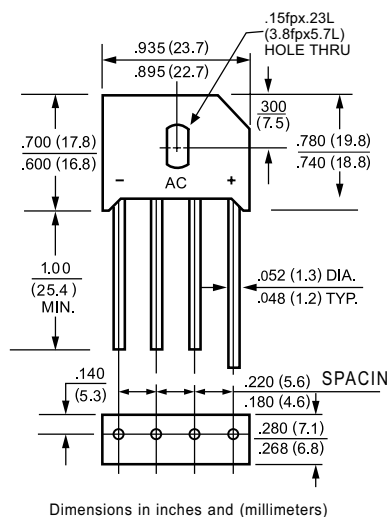
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 4.8 grams

**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%.



**KBU**



|                                                                                    |              | SYMBOL  | KBU10A       | KBU10B | KBU10D | KBU10G | KBU10J | KBU10K | KBU10M | UNITS |
|------------------------------------------------------------------------------------|--------------|---------|--------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                             |              | VRRM    | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum RMS Bridge Input Voltage                                                   |              | VRMS    | 35           | 70     | 140    | 280    | 420    | 560    | 700    | Volts |
| Maximum DC Blocking Voltage                                                        |              | VDC     | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum Average Forward Rectified Output Current at Tc = 75°C                      |              | Io      | 10           |        |        |        |        |        |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load |              | IFSM    | 250          |        |        |        |        |        |        | Amps  |
| Maximum Forward Voltage Drop per element at 5.0A DC                                |              | VF      | 1.1          |        |        |        |        |        |        | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element                | @ TA = 25°C  | IR      | 10           |        |        |        |        |        |        | uAmps |
|                                                                                    | @ Tc = 100°C |         | 500          |        |        |        |        |        |        |       |
| I²t Rating for Fusing (t<8.3ms)                                                    |              | I²t     | 127          |        |        |        |        |        |        | A²Sec |
| Typical Junction Capacitance ( Note1)                                              |              | CJ      | 186          |        |        |        |        |        |        | pF    |
| Typical Thermal Resistance (Note 2)                                                |              | RθJA    | 10           |        |        |        |        |        |        | °C/W  |
| Operating and Storage Temperature Range                                            |              | TJ,TSTG | -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

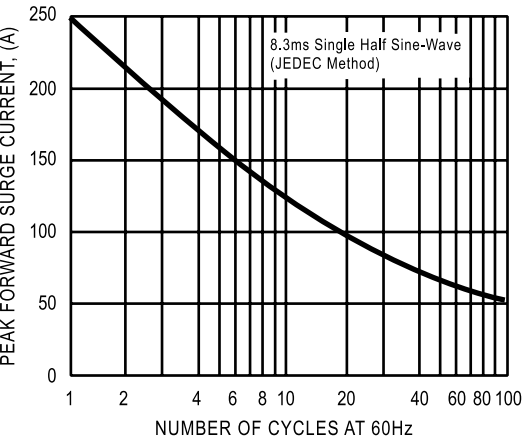


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

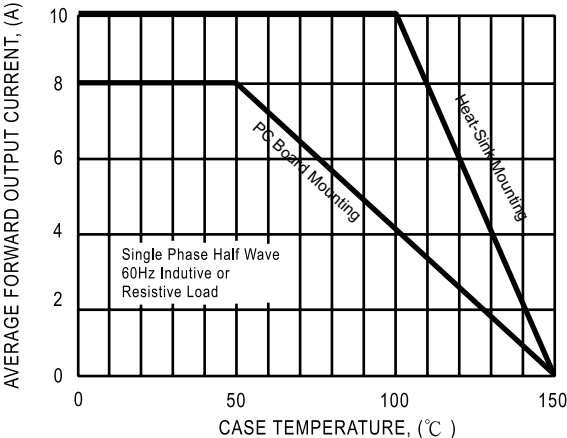


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

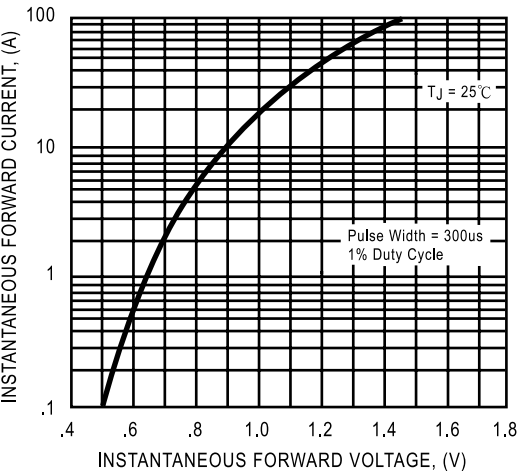


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

