



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

KBU8A / RS801

THRU

KBU8M / RS807

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 8.0 Amperes

**FEATURES**

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

**MECHANICAL DATA**

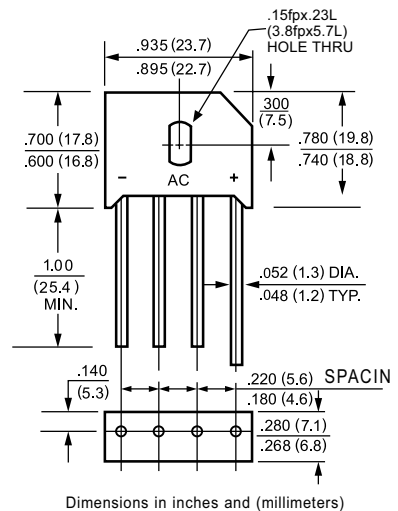
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 4.8 grams

**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



Dimensions in inches and (millimeters)

|  |             | KBU8A   | KBU8B | KBU8D | KBU8G | KBU8J | KBU8K | KBU8M | UNITS        |       |
|--|-------------|---------|-------|-------|-------|-------|-------|-------|--------------|-------|
| SYMBOL   |             | RS801   | RS802 | RS803 | RS804 | RS805 | RS806 | RS807 |              |       |
| Maximum Recurrent Peak Reverse Voltage   |             | 50      | 100   | 200   | 400   | 600   | 800   | 1000  | Volts        |       |
| Maximum RMS Bridge Input Voltage   |             | 35      | 70    | 140   | 280   | 420   | 560   | 700   | Volts        |       |
| Maximum DC Blocking Voltage  |             | 50      | 100   | 200   | 400   | 600   | 800   | 1000  | Volts        |       |
| Maximum Average Forward Rectified Output Current at Tc = 75°C                      |             | Io      |       |       |       |       |       |       | 8.0          | 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 4.0A DC                                |             | VF      |       |       |       |       |       |       | 1.0          | 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

( KBU8A THRU KBU8M )  
 ( RS801 THRU RS807 )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

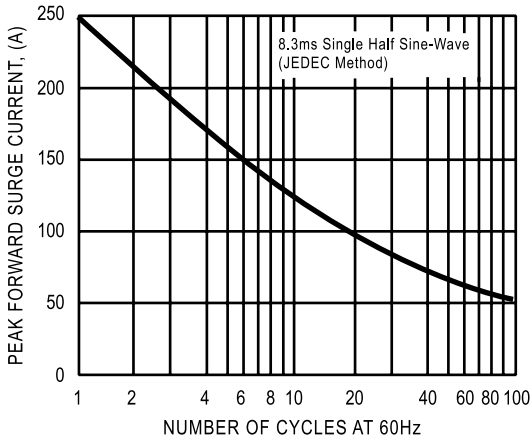


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

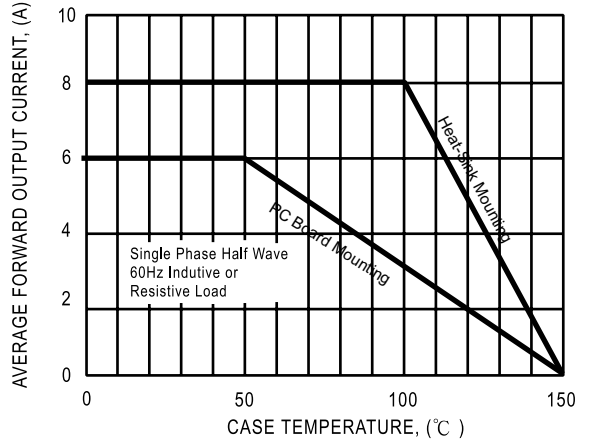


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

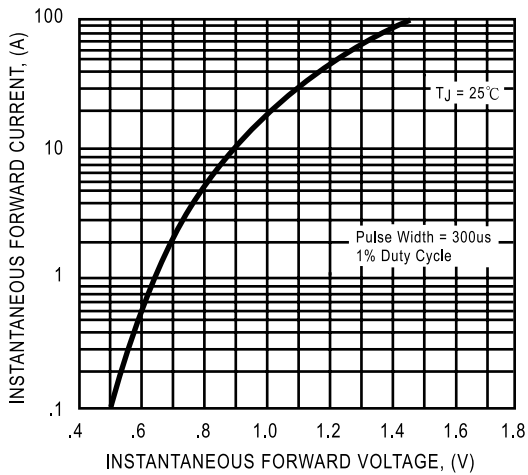
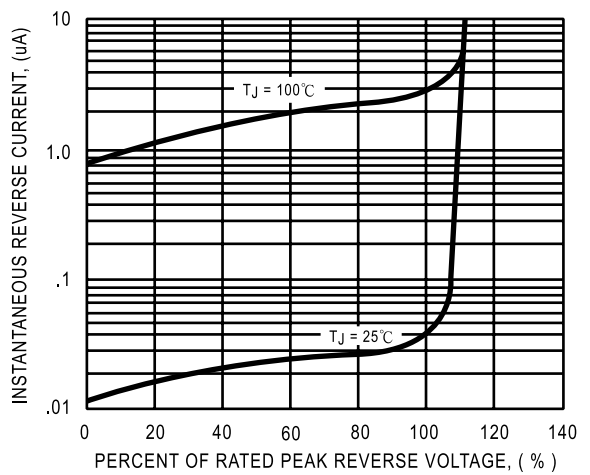


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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