



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

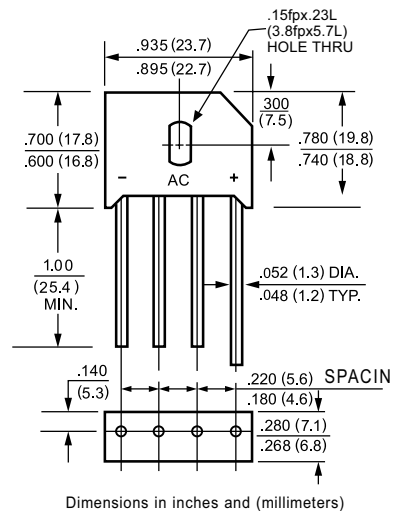
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 4.8 grams

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



| | SYMBOL | KBU8A | KBU8B | KBU8D | KBU8G | KBU8J | KBU8K | KBU8M | UNITS |
|--|-----------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|--------------------|
| | | RS801 | RS802 | RS803 | RS804 | RS805 | RS806 | RS807 | |
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current at T _c = 75°C | I _O | 8.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 250 | | | | | | | Amps |
| Maximum Forward Voltage Drop per element at 4.0A DC | V _F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated | I _R | @ T _A = 25°C | | | | | | | uAmps |
| DC Blocking Voltage per element | | @ T _C = 100°C | | | | | | | |
| I ² t Rating for Fusing (t < 8.3ms) | I ² t | 127 | | | | | | | A ² Sec |
| Typical Junction Capacitance (Note1) | C _J | 186 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | R _{θJA} | 10 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -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

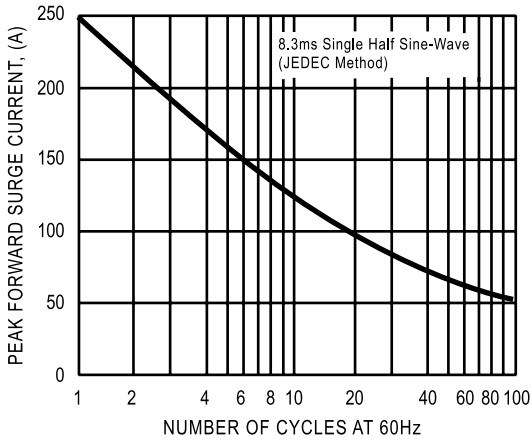


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

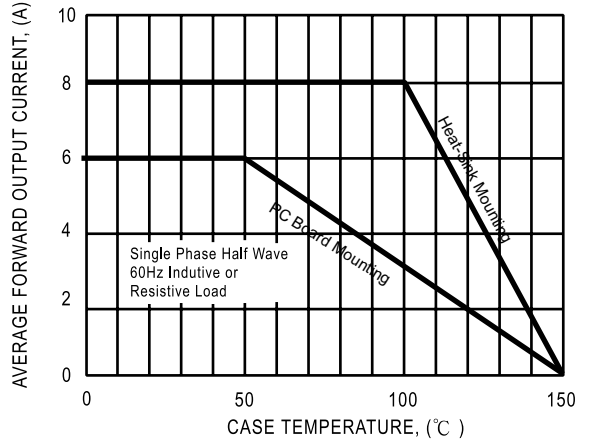


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

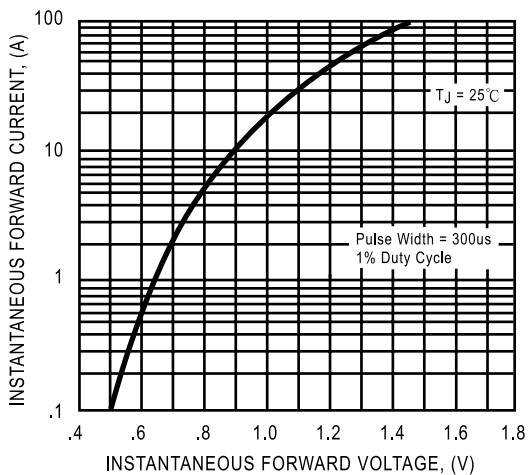
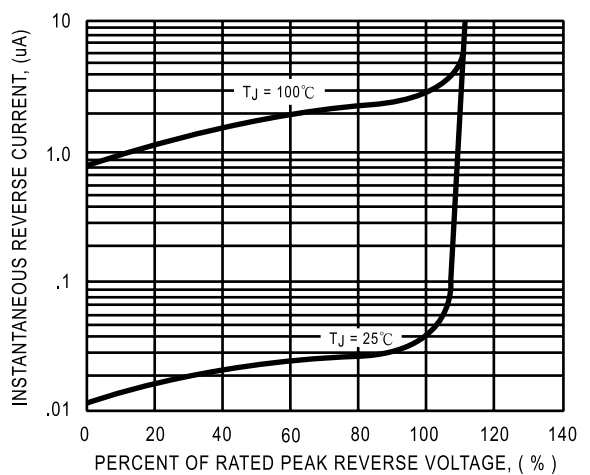


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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