

# KBU8A/RS801 THRU KBU8M/RS807

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 8.0A

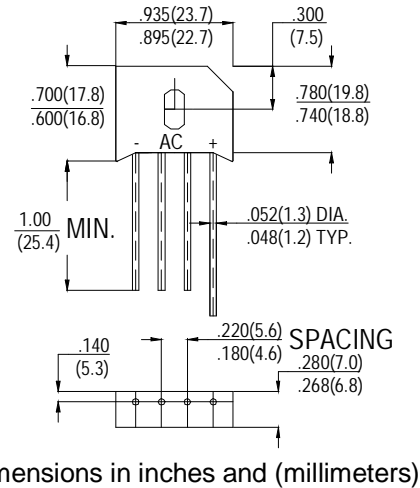
### FEATURES

- Low leakage
- Low forward voltage
- Surge overload ratings-250 Amperes
- Molded structure

### 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:** 8.0 grams

### KBU



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

|   | SYMBOL          | RS801                     | RS802 | RS803 | RS804 | RS805 | RS806 | RS807 | units                     |               |
|---|-----------------|---------------------------|-------|-------|-------|-------|-------|-------|---------------------------|---------------|
|   |                 | KBU8A                     | KBU8B | KBU8D | KBU8G | KBU8J | KBU8K | KBU8M |                           |               |
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 50                        | 100   | 200   | 400   | 600   | 800   | 1000  | V                         |               |
| Maximum RMS Bridge Input Voltage  | $V_{RMS}$       | 35                        | 70    | 140   | 280   | 420   | 560   | 700   | V                         |               |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 50                        | 100   | 200   | 400   | 600   | 800   | 1000  | V                         |               |
| Maximum Average Forward rectified Output Current at $T_C=75^\circ\text{C}$                      | $I_o$           | 8.0                       |       |       |       |       |       |       | A                         |               |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$       | 250                       |       |       |       |       |       |       | A                         |               |
| Maximum Forward Voltage Drop per element at 4.0A DC   | $V_F$           | 1.0                       |       |       |       |       |       |       | V                         |               |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element                             | $I_R$           | @ $T_A=25^\circ\text{C}$  | 10    |       |       |       |       |       |                           | $\mu\text{A}$ |
|   |                 | @ $T_A=100^\circ\text{C}$ | 500   |       |       |       |       |       |                           |               |
| $I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )   | $I^2t$          | 127                       |       |       |       |       |       |       | $\text{A}^2\text{S}_{ec}$ |               |
| Typical Junction Capacitance (Note 1)   | $C_J$           | 186                       |       |       |       |       |       |       | pF                        |               |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ | 10                        |       |       |       |       |       |       | $^\circ\text{C/W}$        |               |

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient with units mounted on 0.47×0.47”(12×12mm) copper pads