



KBU6005/RS601/KBU6A THRU KBU610/RS607/KBU6M

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 6.0A

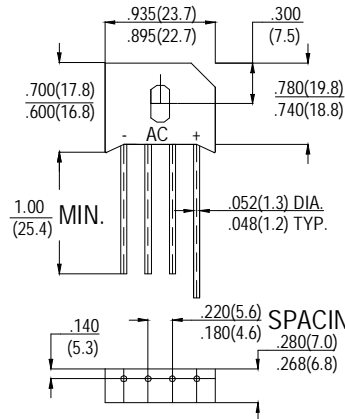
FEATURES

- 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



Dimensions in inches and (millimeters)

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	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610	units	
		RS601	RS602	RS603	RS604	RS605	RS606	RS607		
		KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M		
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 $T_C=75^\circ C$	I_o	6.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	200							A	
Maximum Forward Voltage Drop per element at 3.0A DC	V_F	1.0							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I_R	@ $T_A=25^\circ C$	10							μA
		@ $T_A=100^\circ C$	500							
I^2t Rating for Fusing ($t<8.3ms$)	I^2t	127							A^2S_{ec}	
Typical Junction Capacitance (Note 1)	C_J	186							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10							$^\circ C/W$	

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