

# KBPC6005/BR605 THRU KBPC610/BR610

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 6.0A

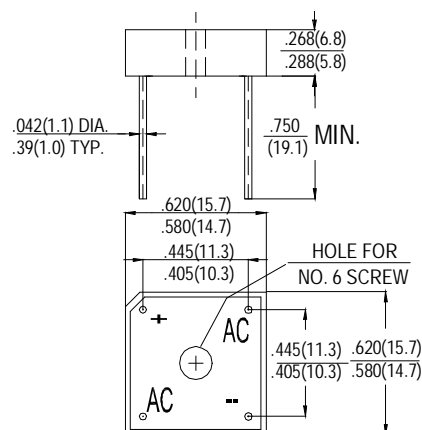
### FEATURES

- Surge overload ratings-125 Amperes
- Low forward voltage drop
- Small size: simple installation

### MECHANICAL DATA

- **Case:** Metal or plastic shell with plastic encapsulation
- **Epoxy:** UL 94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Symbols molded or marked on body
- **Mounting:** Thru hole for 6# screw
- **Weight:** 6.10 grams

### BR-6



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	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	units
		6005	601	602	604	606	608	610	
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 $T_C=50^\circ\text{C}$	$I_o$	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	$I_R$	@ $T_A=25^\circ\text{C}$							$\mu\text{A}$
		@ $T_A=100^\circ\text{C}$							
$I^2t$ 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

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

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5×0.5" (13×13mm) copper pads.