

KBPC1005/BR305 THRU KBPC110/BR310

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 3.0A

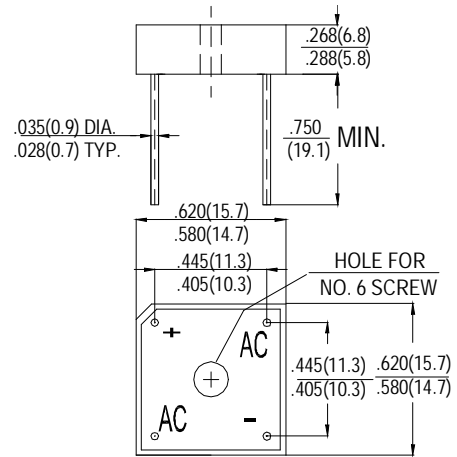
FEATURES

- Surge overload ratings-50 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:** 3.36 grams

BR-3



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	
		1005	101	102	104	106	108	110		
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 $T_C=50^\circ C$	I_o	3.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	50							A	
Maximum Forward Voltage Drop per element at 1.5A 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	10							A^2S	
Typical Junction Capacitance (Note 1)	C_J	21							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 $0.47 \times 0.47'' (12 \times 12mm)$ copper pads.