



# KBPC1005/BR305 THRU KBPC110/BR310

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 3.0A

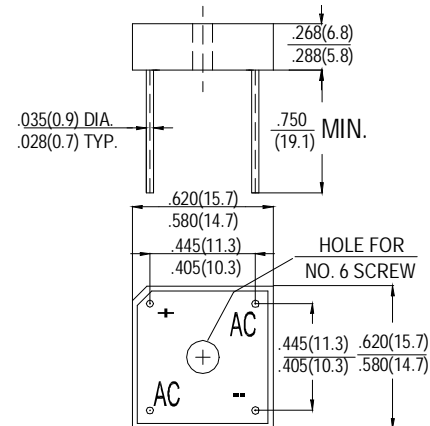
### FEATURES

- 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 BR305	101 BR31	102 BR32	104 BR34	106 BR36	108 BR38	110 BR310	
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	$I_R$	@ $T_A=25^\circ C$							$\mu A$
		@ $T_A=100^\circ C$							
$I^2t$ 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.