

KBPC1005 THRU KBPC1010

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 10.0A

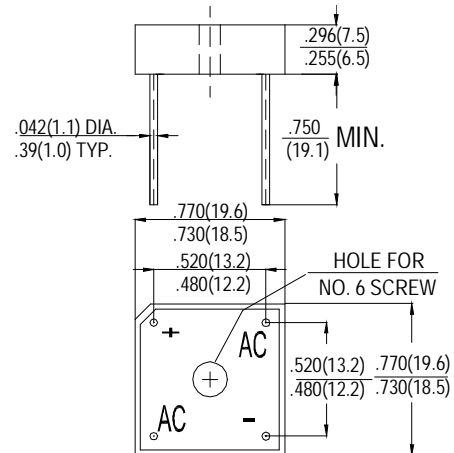
FEATURES

- Surge overload ratings-200 Amperes
- Low forward voltage drop

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:** 6.9 grams

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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 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	units
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	10							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 5.0A DC	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@ $T_A=25^\circ\text{C}$	10							μA
	@ $T_A=100^\circ\text{C}$	500							
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t	166							A^2S_{ec}
Typical Junction Capacitance (Note 1)	C_J	200							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.