

# KBPC8005 THRU KBPC810

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 8.0A

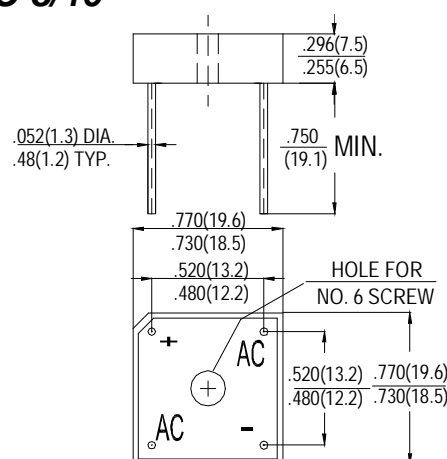
### FEATURES

- Surge overload ratings-125 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

### KBPC-8/10



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 8005 | KBPC 801 | KBPC 802 | KBPC 804 | KBPC 806 | KBPC 808 | KBPC 810 | 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 $T_C=75^\circ\text{C}$                      | $I_o$                     | 8.0       |          |          |          |          |          |          | 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 4.0A DC   | $V_F$                     | 1.1       |          |          |          |          |          |          | V                         |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element                             | @ $T_A=25^\circ\text{C}$  | 10        |          |          |          |          |          |          | $\mu\text{A}$             |
|   | @ $T_A=100^\circ\text{C}$ | 500       |          |          |          |          |          |          |                           |
| $I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )   | $I^2t$                    | 166       |          |          |          |          |          |          | $\text{A}^2\text{S}_{ec}$ |
| 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.