



KBPC6005/BR605 THRU KBPC610/BR610

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 6.0A

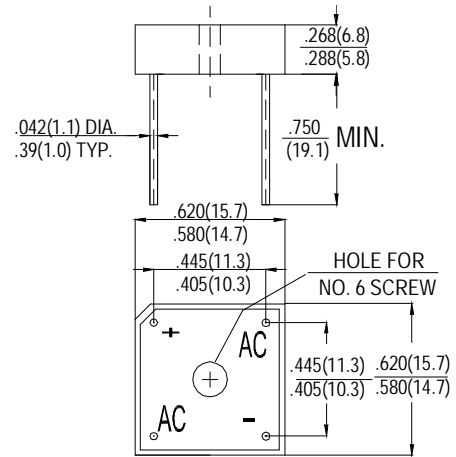
FEATURES

- 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 $T_C=50^\circ C$ | 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 | @ $T_A=25^\circ C$ | | | | | | | μA |
| | | @ $T_A=100^\circ C$ | | | | | | | |
| I^2t Rating for Fusing ($t<8.3ms$) | I^2t | 127 | | | | | | | A^2S_{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.