

Kingtronics®

KBPC8005 THRU KBPC810

SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 8.0 Ampere

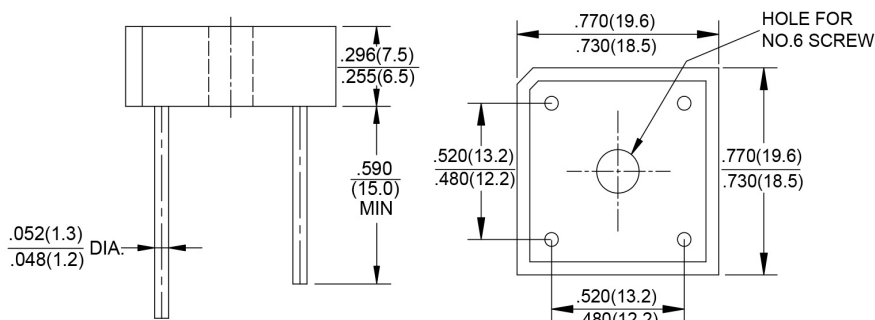
FEATURES

High forward surge current capability
 Ideal for printed circuit board
 High isolation voltage from case to leads
 High temperature soldering guaranteed:
 260°C /10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

Case: Molded plastic body
 Terminal: Lead solderable per MIL-STD-202E method 208C
 Polarity: Polarity symbols molded on case
 Mounting: Thru hole for #6 screw, 5.0 in.-lbs torque max
 Weight: 0.20ounce, 5.62 grams

BR-8



Polarity shown on side of case, positive lead by beveled corner.

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%

| PARAMETER | SYMBOL | KBPC 8005 | KBPC 801 | KBPC 802 | KBPC 804 | KBPC 806 | KBPC 808 | KBPC 810 | UNIT |
|---|-------------------|-------------|----------|----------|----------|----------|----------|----------|------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RRM} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current at TC=100 °C | $I_{(AV)}$ | 8.0 | | | | | | | Amps |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 175 | | | | | | | Amps |
| Rating for Fusing(t<8.3ms) | I^2t | 64 | | | | | | | A ² S |
| Maximum Instantaneous Forward Voltage at 4.0A | V_F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current at rated DC blocking voltage | $T_A=25^\circ C$ | 5.0 | | | | | | | uAmps |
| | $T_A=125^\circ C$ | 1.0 | | | | | | | mAmps |
| Isolation Voltage from case to leads | V_{ISO} | 2500 | | | | | | | V_{AC} |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 6.0 | | | | | | | °C/W |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | °C |

1- Unit mounted on 8.7"×8.7"×0.24" thick (22×22×0.6 cm) Al. plate.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

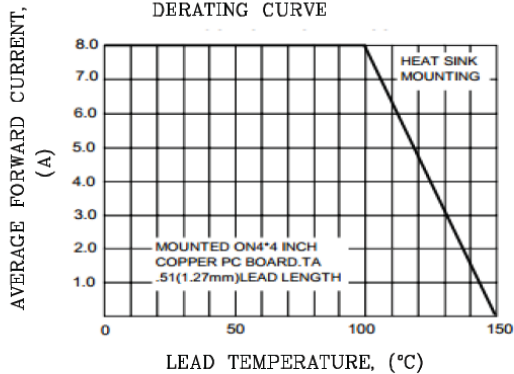


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

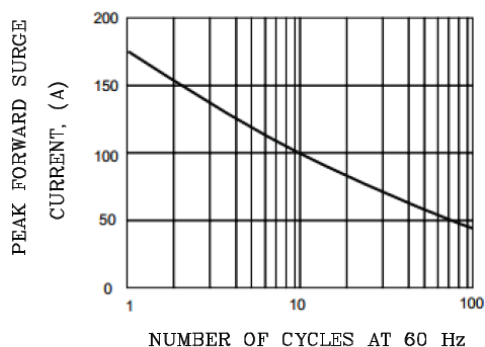


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

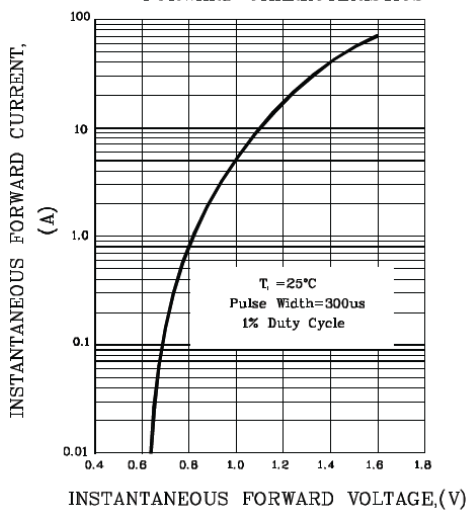


FIG.4-TYPICAL REVERSE CHARACTERISTICS

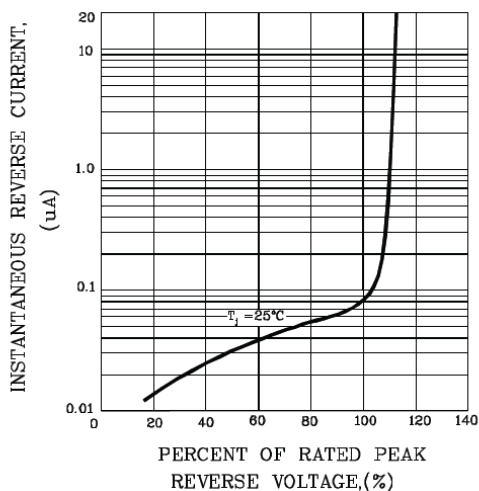
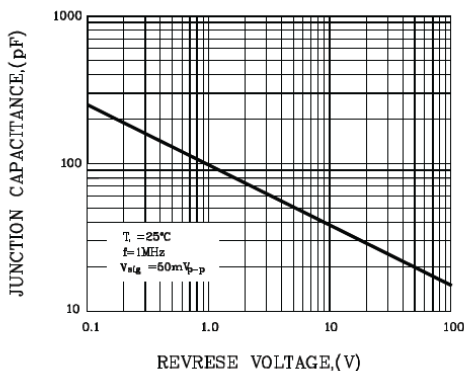


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.

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