

# Kingtronics®

# KBPC10005 THRU KBPC1010

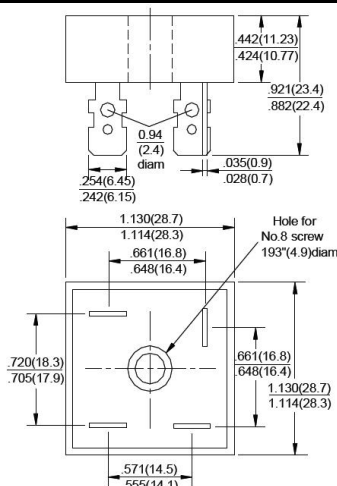
## SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts      FORWARD CURRENT 10.0 Ampere

### FEATURES

- Rating to 1000V PRV
- Surge overload rating to 240 Amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208
- Mounting: thru hole for # 10 screw Mounting

### KBPC



### 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%

Dimensions in inches and (millimeters)

| PARAMETER  | SYMBOL     | KBPC 10005  | KBPC 1001 | KBPC 1002 | KBPC 1004 | KBPC 1006 | KBPC 1008 | KBPC 1010 | UNIT             |
|--|------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$  | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | V                |
| Maximum RMS Voltage  | $V_{RRM}$  | 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<br>And Output Current @ $T_A=50^\circ\text{C}$                                     | $I_F (AV)$ | 10.0        |           |           |           |           |           |           | A                |
| Peak Forward Surge Current 8.3ms<br>Single half-sine-wave superimposed on rated load                       | $I_{FSM}$  | 240.0       |           |           |           |           |           |           | A                |
| Maximum instantaneous forward voltage<br>at 5.0 A  | $V_F$      | 1.0         |           |           |           |           |           |           | V                |
| Maximum Reverse Current @ $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A=125^\circ\text{C}$ | $I_R$      | 5.0         |           |           |           |           |           |           | $\mu\text{A}$    |
|  |            | 0.5         |           |           |           |           |           |           | mA               |
| Operating junction temperature range   | $T_J$      | -55 to +125 |           |           |           |           |           |           | $^\circ\text{C}$ |
| Storage Temperature Range  | $T_{STG}$  | -55 to +150 |           |           |           |           |           |           | $^\circ\text{C}$ |

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

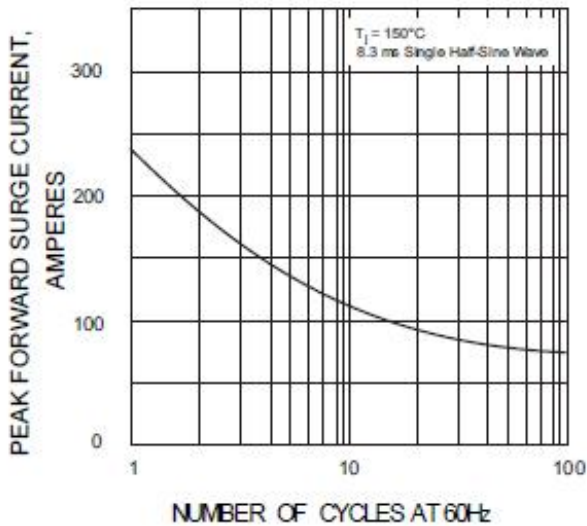
2- Unit mounted on P.C.B at 0.375" (9.5mm) lead length with 0.47"×0.47" (12×12mm) copper pads.

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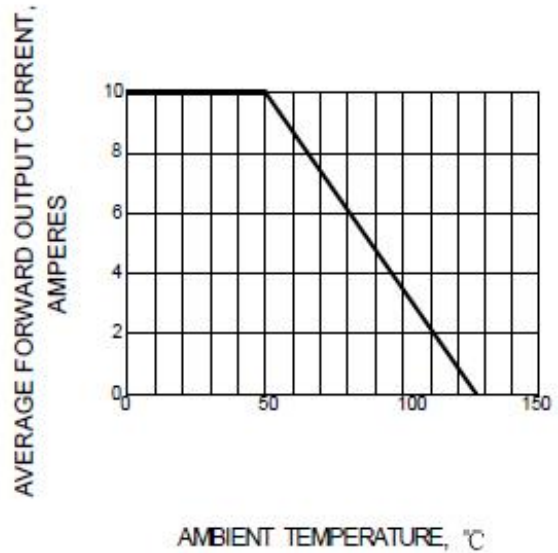
# KBPC1005 THRU KBPC1010

## RATINGS AND CHARACTERISTIC CURVES

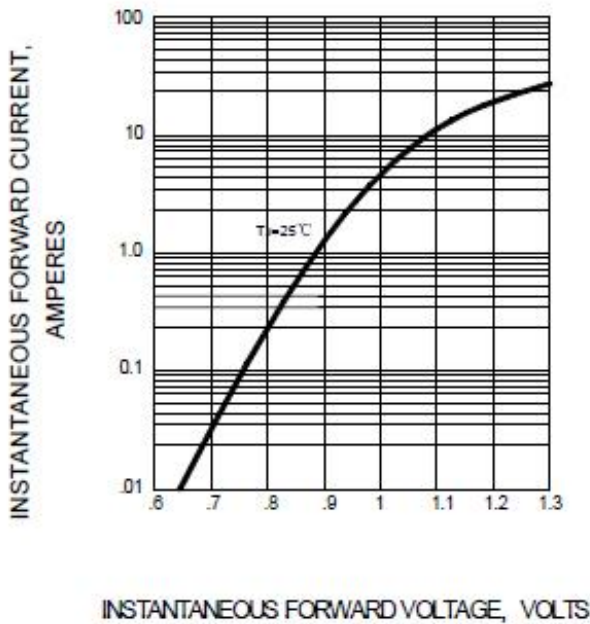
**FIG.1 – PEAK FORWARD SURGE CURRENT**



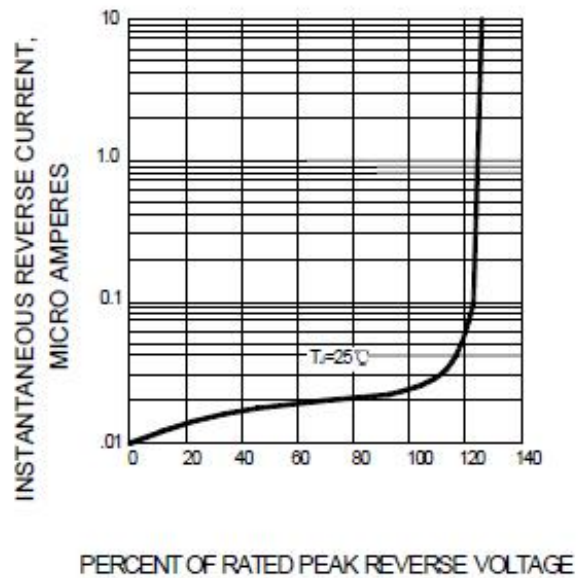
**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**



Note: Specifications are subject to change without notice.