

# Kingtronics®

# KBPC15005 THRU KBPC1510

## SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts      FORWARD CURRENT 15.0 Ampere

### FEATURES

High forward surge current capability  
Low thermal resistance  
High isolation voltage from case to leads  
High temperature soldering guaranteed:  
260°C /10 second, at 5 lbs. (2.3kg) tension.

### MECHANICAL DATA

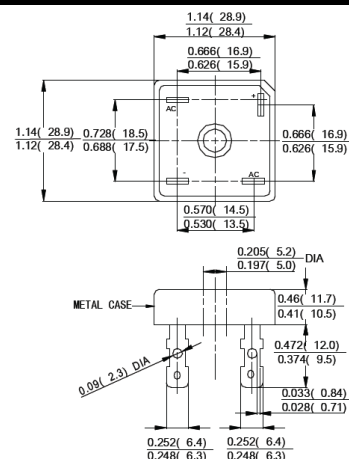
Case: Metal case  
Terminal: Plated 0.25" (6.35mm) lug  
Polarity: Polarity symbols molded on case  
Mounting: Thru hole for #10 screw, 20 in,- lbs. Torque Max  
Weight: 1.02 ounce, 29 gram

### 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%

### KPBC



Dimensions in inches and (millimeters)

PARAMETER	SYMBOL	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	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 $T_C=50^{\circ}\text{C}$ (Note 1,2)	$I_{(VA)}$	15							Amps
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	373							$\text{A}^2\text{S}$
Maximum Instantaneous Forward Voltage at 7.5A	$V_F$	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^{\circ}\text{C}$	5.0							$\mu\text{Amps}$
	$T_A=125^{\circ}\text{C}$	0.5							$\text{mAmps}$
Isolation Voltage from case to lugs	$V_{ISO}$	2500							$V_{AC}$
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							$^{\circ}\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-65 to +150							$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^{\circ}\text{C}$

- Unit mounted on 9"×3.5"×4.6" (23×9×11.8mm) Al. finned plate.
- Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

**Kingtronics® International Company**

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## RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

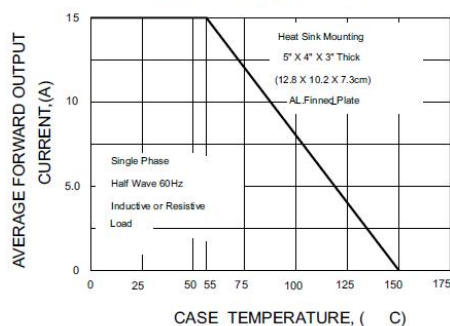


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

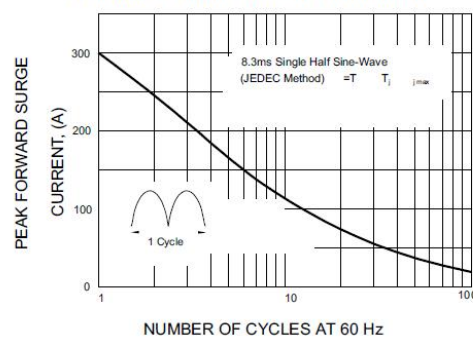


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

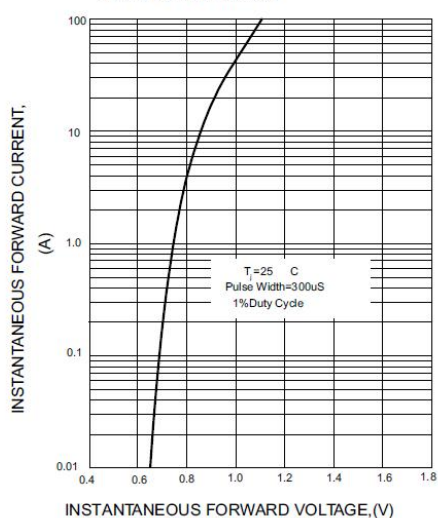


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

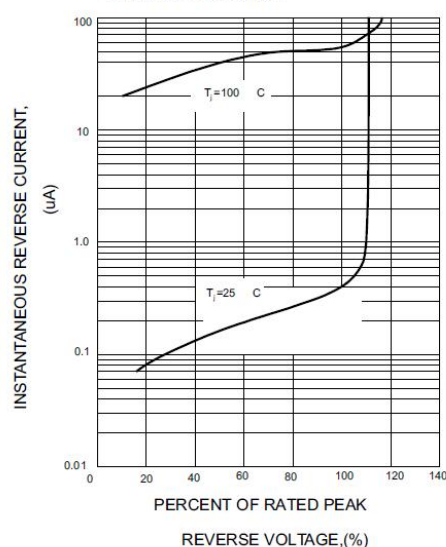


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

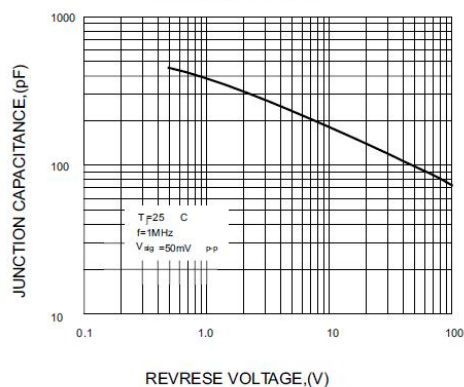
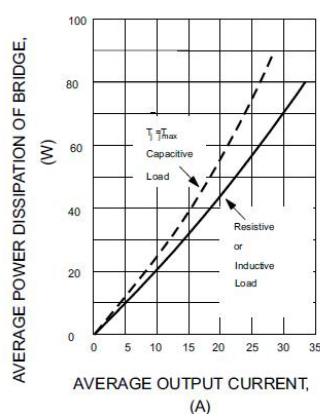


FIG.6-MAXIMUM POWER DISSIPATION



Note: Specifications are subject to change without notice.

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