

Kingtronics®

KBPC50005 THRU KBPC5010

SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts

CURRENT 50.0 Ampere

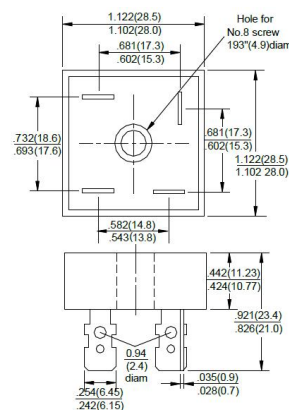
FEATURES

High forward surge current capability
Inegrally molded heatsink provide very low thermal resistance
High isolation voltage from case to lugs
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 #8 screw, 20 in,- lbs. Torque Max
Weight: 1.02 ounce, 29 gram

KPBC



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)

	SYMBOL	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	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 $T_C=50^\circ C$ (Note1,2)	$I_{(AV)}$	50							Amps
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400							Amps
Rating for Fusing($t<8.3ms$)	I^2t	664							A^2S
Maximum Instantaneous Forward Voltage at 25A	V_F	1.1							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 lugs	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							$^\circ C/W$
Operating Temperature Range	T_J	-55 to +125							$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$

- Unit mounted on 9"x3.5"x4.6"(23x9x11.8mm) 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.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

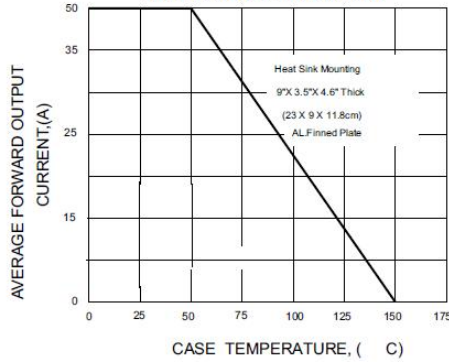


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

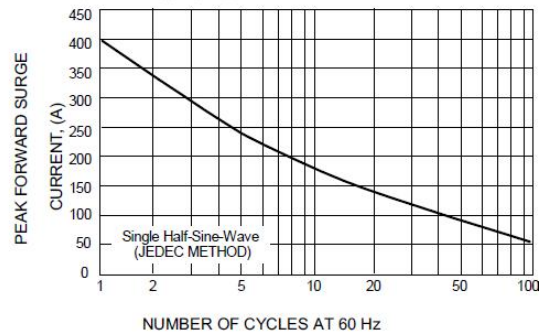


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

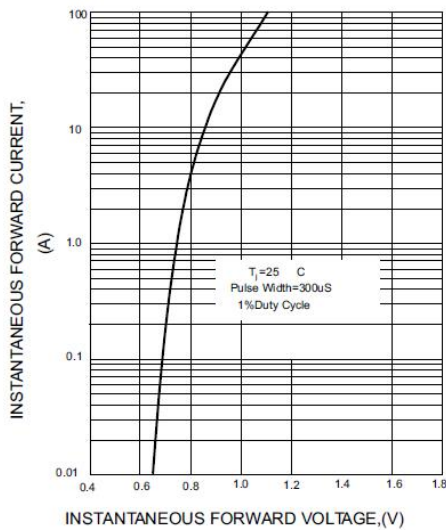


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

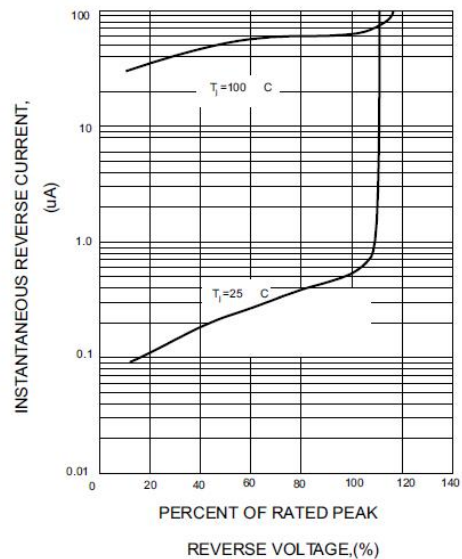
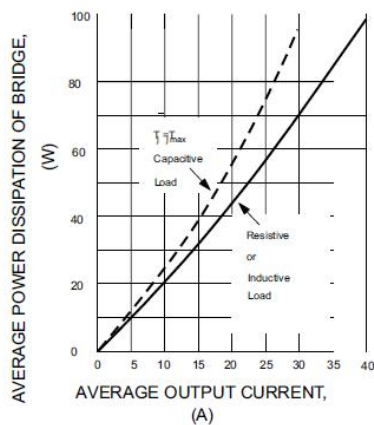


FIG.5-MAXIMUM POWER DISSIPATION



Note: Specifications are subject to change without notice.