

Kingtronics®

KBPC50005W THRU KBPC5010W

SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50.0 Ampere

FEATURES

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

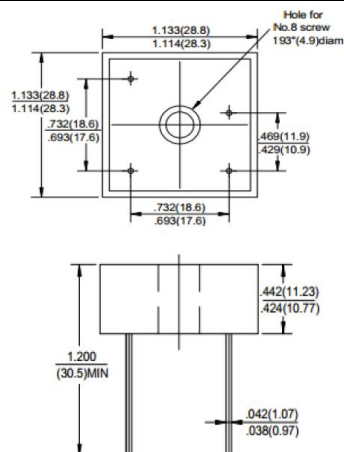
MECHANICAL DATA

Case: Metal case
 Terminal: Plated 0.25" (6.35mm) lug
 Polarity: Polarity symbols molded on case
 Mounting: Thru hole for #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-W



Dimensions in inches and (millimeters)

PARAMETER	SYMBOL	KBPC 50005W	KBPC 5001W	KBPC 5002W	KBPC 5004W	KBPC 5006W	KBPC 5008W	KBPC 5010W	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 $T_C=55^\circ C$ (Note 1,2)	$I_{(AV)}$	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 7.5A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ C$	5.0							uAmps
	$T_A=150^\circ C$	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	-65 to +150							$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ C$

- Unit mounted on 5"x4"x3" thick (12.8mmx10.2mmx7.3mm) Al. 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

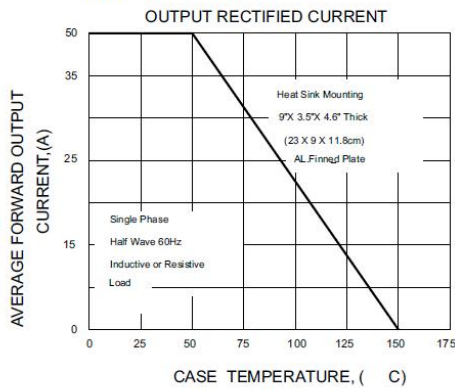


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

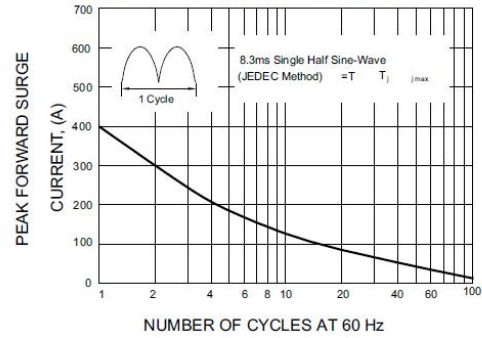


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

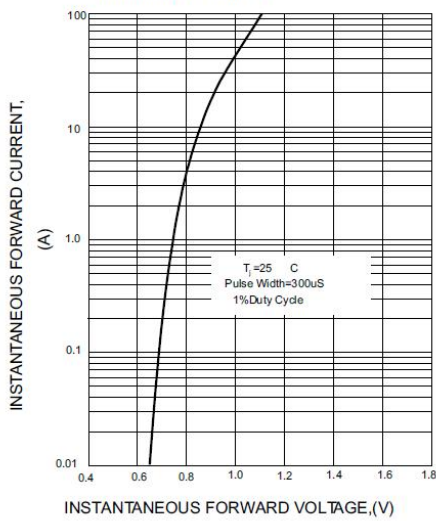


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

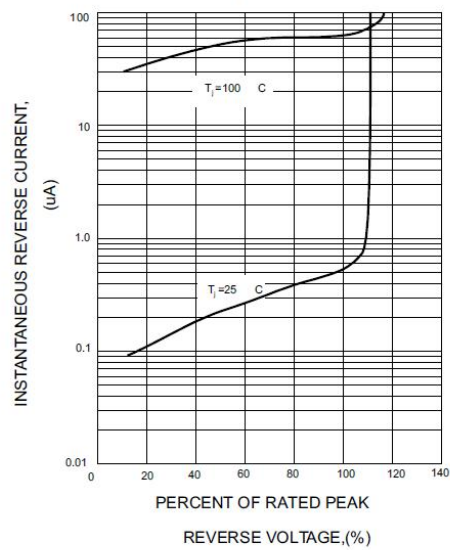
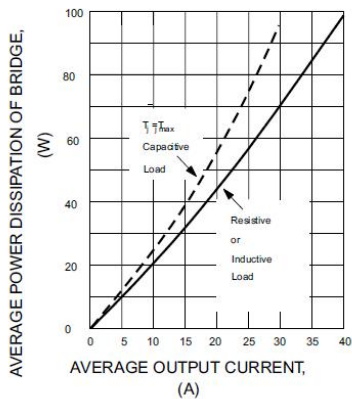


FIG.5-MAXIMUM POWER DISSIPATION



Note: Specifications are subject to change without notice.

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