

**Kingtronics**®**KBPC35005 THRU  
KBPC3510****SINGLE-PHASE BRIDGE RECTIFIER****VOLTAGE RANGE 50 to 1000 Volts    CURRENT 35.0 Ampere****FEATURES**

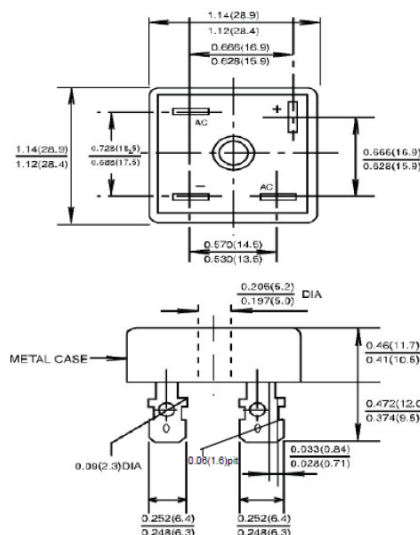
High forward surge current capability.  
Integrally molded heatsink provide very low thermal resistance.  
High isolation voltage from case to lugs.  
High temperature soldering guaranteed: 260°C/10 second, at 5 lbs. (2.3kg) tension.

**MECHANICAL DATA**

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

**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 35005	KBPC 3501	KBPC 3502	KBPC 3504	KBPC 3506	KBPC 3508	KBPC 3510	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 $T_c=50^\circ\text{C}$ (Note 1,2)	$I_{(AV)}$	35							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	400							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I_2T$	664							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage at 17.5A	$V_F$	1.1							Volts
Maximum 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							mAmps
Isolation Voltage from case to lugs	$V_{ISO}$	2500							$V_{AC}$
Typical Thermal Resistance (Note 1,2)	$R_{\theta JL}$	2.0							$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-65 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +150							$^\circ\text{C}$

1- Unit mounted on 9"×3.5"×4.6" thick (23×9×11.8mm) Al. plate.

2- 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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# KBPC35005 THRU KBPC3510

## RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

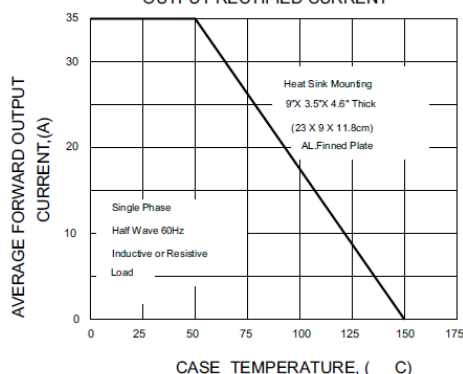


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

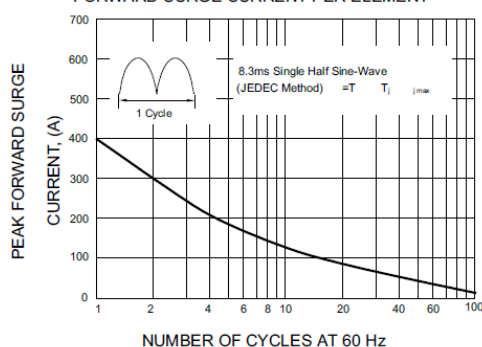


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

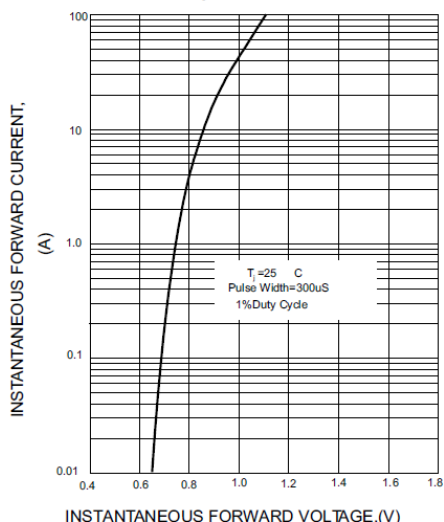


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

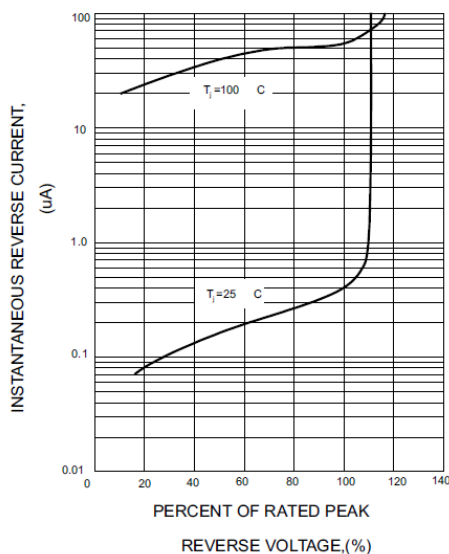


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

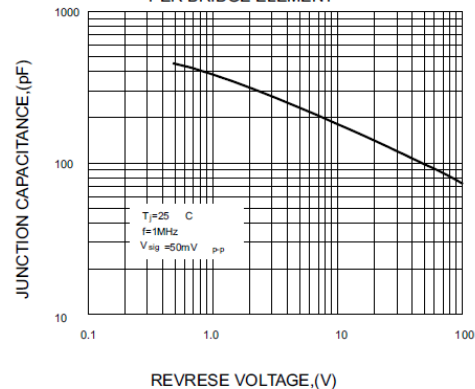
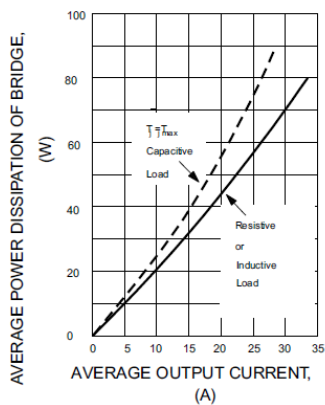


FIG.6-MAXIMUM POWER DISSIPATION



Note: Specifications are subject to change without notice.

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