

Kingtronics®**KBPC6005 THRU
KBPC610****SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS****REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 6.0 Ampere****FEATURES**

High Current Capability
 High Case Dielectric Strength
 High Surge Current Capability
 Ideal for Printed Circuit Board Application
 Plastic Material has Underwriters Laboratory
 Flammability Classification 94V-0

MECHANICAL DATA

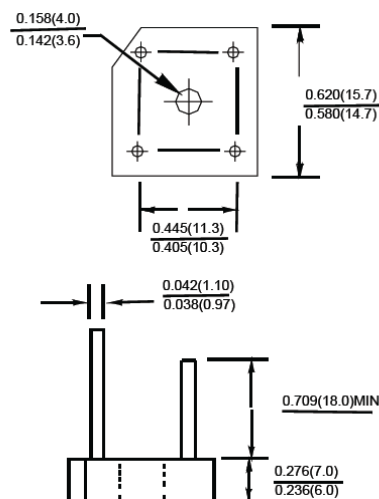
Case: Molded Plastic
 Terminals: Plated Leads Solderable per
 MIL-STD-202, Method 208
 Polarity: Marked on Body
 Weight: 3.8 grams (approx.)
 Mounting Position: Through Hole for #6 Screw
 Mounting Torque: 5.0 Inch-pounds Maximum
 Marking: Type Number

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 6005	KBPC 601	KBPC 602	KBPC 604	KBPC 606	KBPC 608	KBPC 610	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @TC = 50°C	I_o				60				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				125				A
Forward Voltage (per element) @ $I_F = 3.0A$	V_{FM}				1.0V				
Peak Reverse Current @TC = 25°C	I_R				5				uA
At Rated DC Blocking Voltage @TC = 100°C					0.5				mA
I^2t Rating for fusing ($t < 8.3ms$) (Note 2)	I^2t				64				A2S
Typical Junction Capacitance (Note 3)	C_J				55				pF
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$				12.5				K/W
Operating and Storage Temperature Range	T_J, T_{STG}				-65 to +125				°C

1- Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2- Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

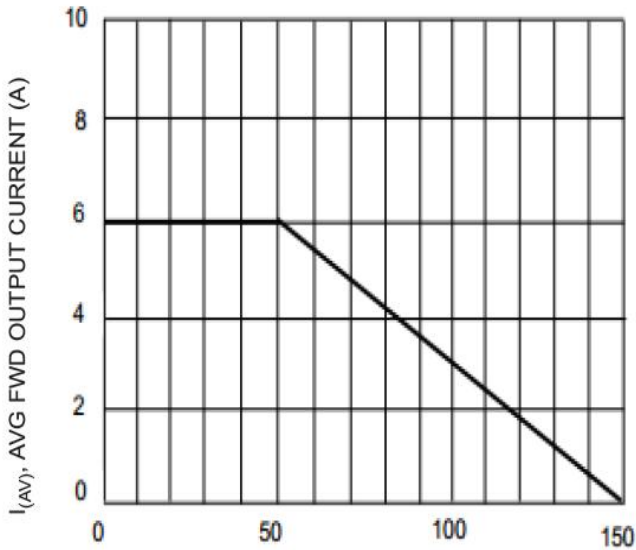
3- Mounted on metal chassis. 4. Non-repetitive, for $t > 1ms$ and $< 8.3ms$.

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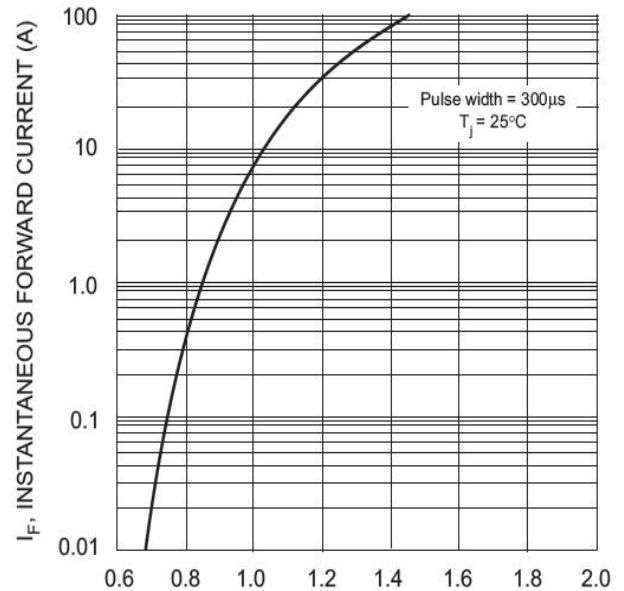
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KBPC6005 THRU KBPC610

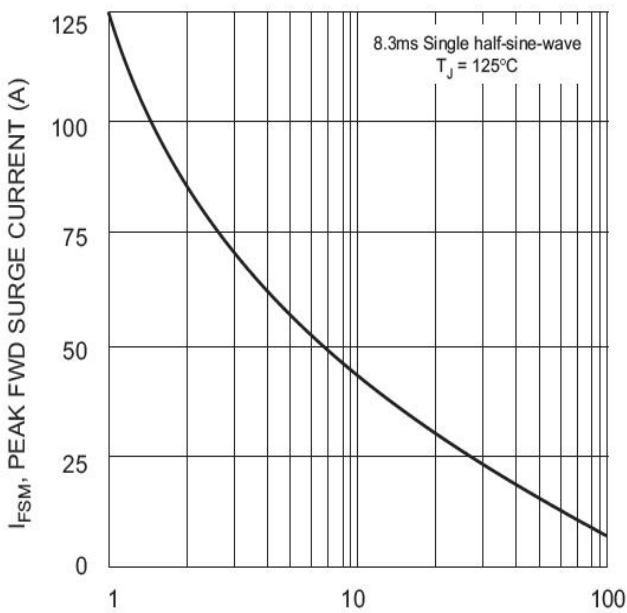
RATINGS AND CHARACTERISTIC CURVES



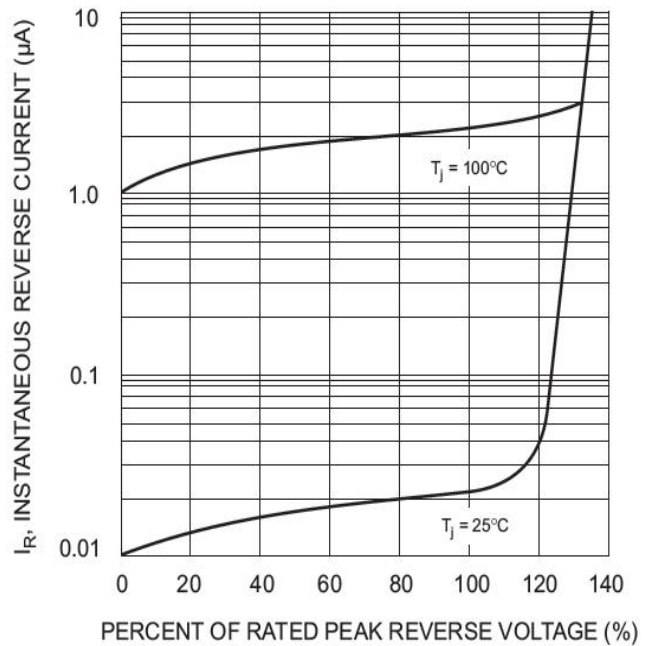
T_C , CASE TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics, per element



NUMBER OF CYCLES AT 60Hz
Fig. 3 Peak Forward Surge Current



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 4 Typical Reverse Characteristics

Note: Specifications are subject to change without notice.