

**Kingtronics**®**KBU6005 THRU  
KBU610****SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS**  
**REVERSE VOLTAGE 50 to 1000 Volts    FORWARD CURRENT 6.0 Ampere****FEATURES**

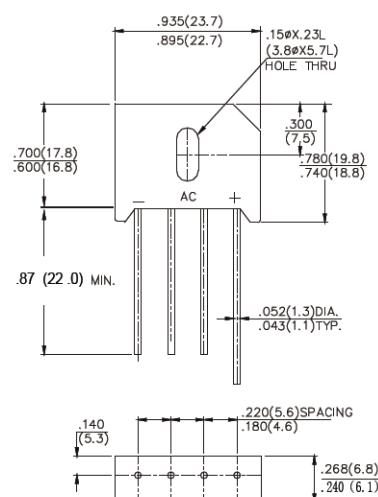
High forward surge current capability.  
Ideal for printed circuit board.  
High temperature soldering guaranteed:  
260°C/10 second, 0.375" (9.5mm) lead length  
at 5 lbs. (2.3kg) tension.

**MECHANICAL DATA**

Case: Transfer molded plastic.  
Terminal: Lead solderable per MIL - STD - 202E method 208°C.  
Polarity: Polarity symbols marked on case.  
Mounting: Thru hole for #6 screw, 5 in.- lbs. Torque Max.  
Weight: 0.27 ounce, 7.59 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%

**Dimensions in inches and (millimeters)**

PARAMETER	SYMBOL	KBU 6005	KBU 601	KBU 602	KBU 604	KBU 606	KBU 608	KBU 610	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 $T_C=100^\circ\text{C}$	$I_{(AV)}$	6.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage Drop per bridge element at 3.0A	$V_F$	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$T_A=25^\circ\text{C}$	10							$\mu\text{A}$
	$T_A=100^\circ\text{C}$	1.0							mA
Typical Junction Capacitance (Note 1)	$C_j$	105							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	4.7							$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-65 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150							

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

2- Unit mounted on 2.6" X 1.4" X 0.06" thick (6.3 X 3.5 X 0.15cm) Al. plate.

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# Kingtronics®

# KBU6005 THRU KBU610

## RATINGS AND CHARACTERISTIC CURVES

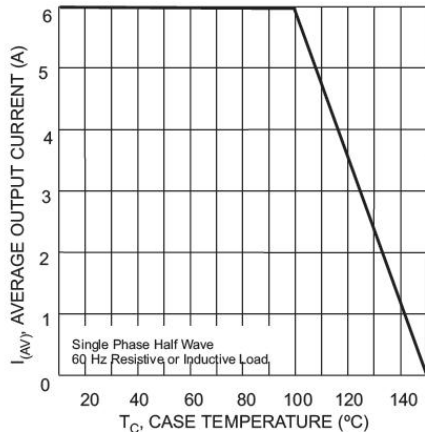


Fig. 1 Forward Current Derating Curve

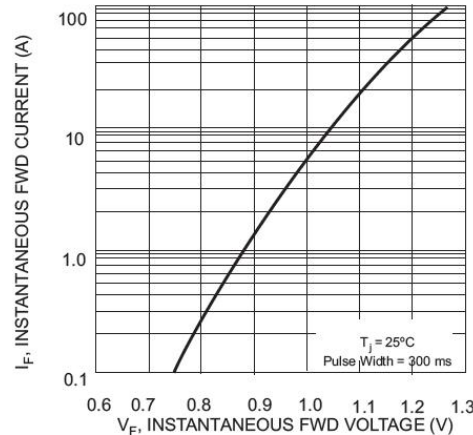


Fig. 2 Typical Forward Characteristics, per element

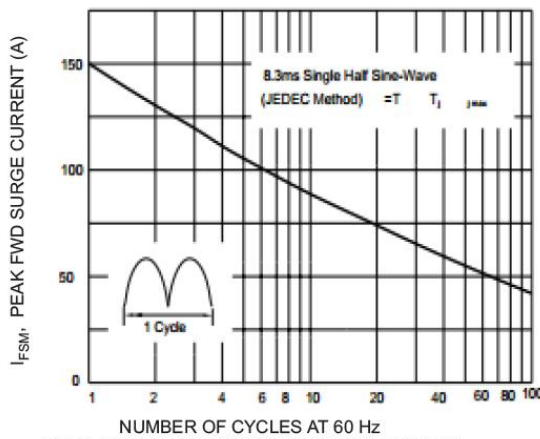


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

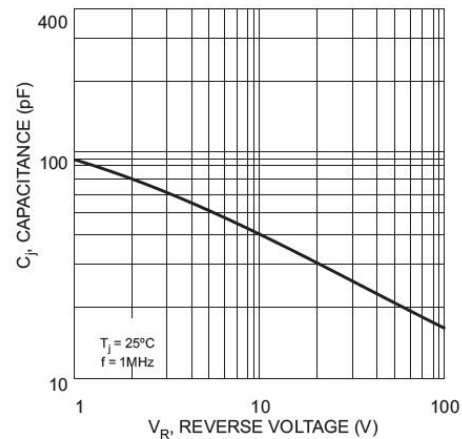


Fig. 4 Typical Junction Capacitance Per Element

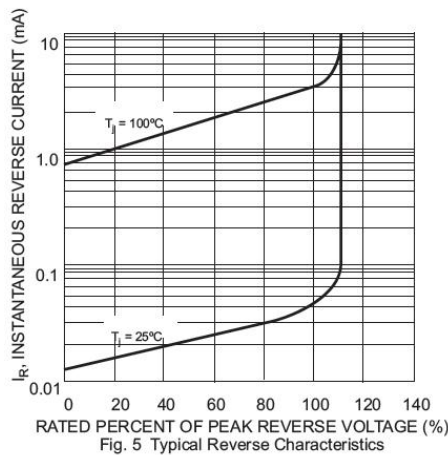


Fig. 5 Typical Reverse Characteristics

Note: Specifications are subject to change without notice.

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