

# KBU6005 THRU KBU610

## SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts    CURRENT 6.0 Ampere

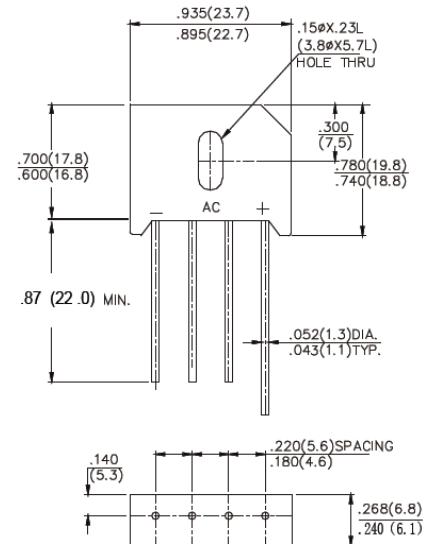
### FEATURES

- ◆ 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.

### KBU



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

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 $T_C=100^\circ C$	$I_{(AV)}$	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 ( $t < 8.3ms$ )	$I^2T$	93							$A^2s$
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	$T_A=25^\circ C$	$I_R$							$\mu A$
	$T_A=100^\circ C$	1.0							mA
Typical Junction Capacitance (Note 1)	$C_j$	105							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	4.7							$^\circ C/W$
Operating Temperature Range	$T_J$	-65 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 to +150							

Note: 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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### RATING AND CHARACTERISTIC CURVES KBU6005 THRU KBU610

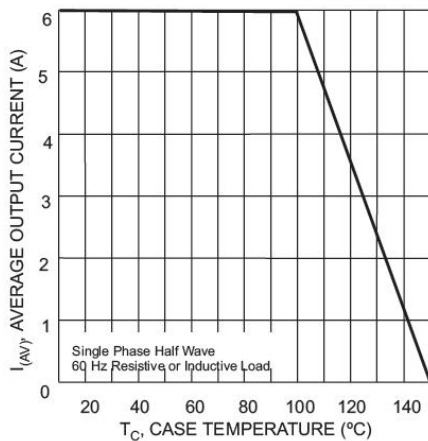


Fig. 1 Forward Current Derating Curve

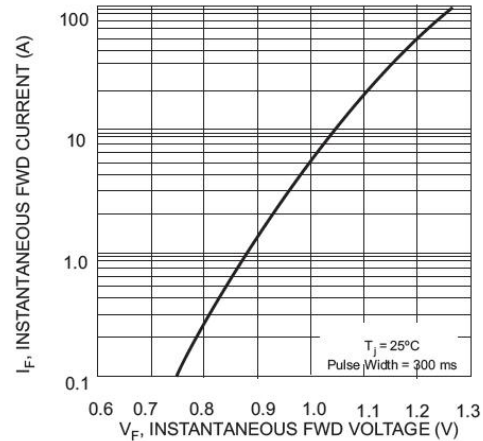


Fig. 2 Typical Forward Characteristics, per element

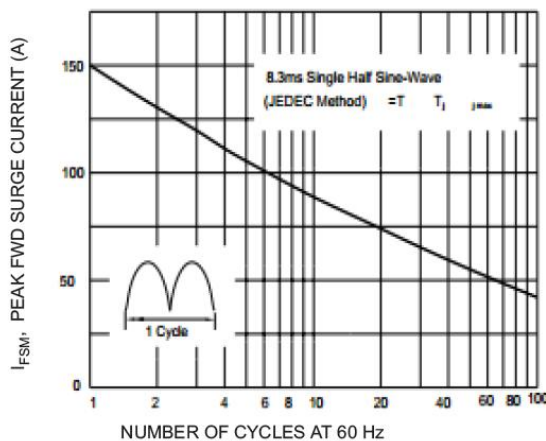


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

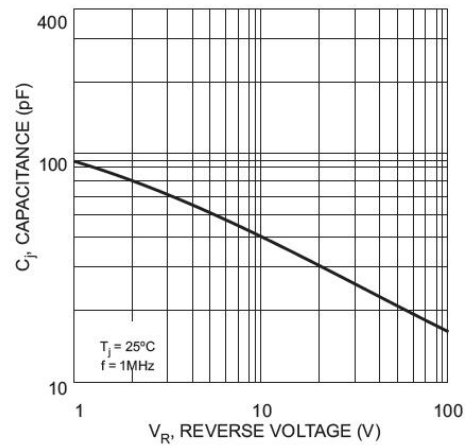


Fig. 4 Typical Junction Capacitance Per Element

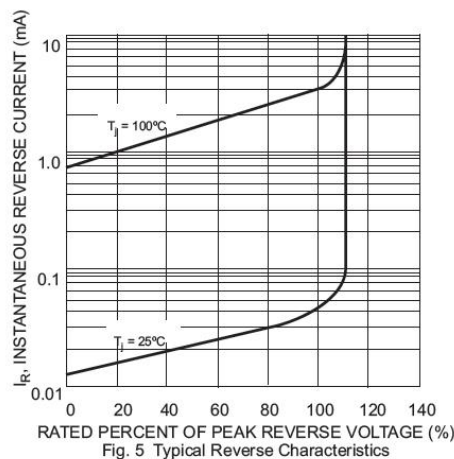


Fig. 5 Typical Reverse Characteristics

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.