



# KBU6005 THRU KBU610

## SINGLE PHASE SILICON BRIDGE RECTIFIER

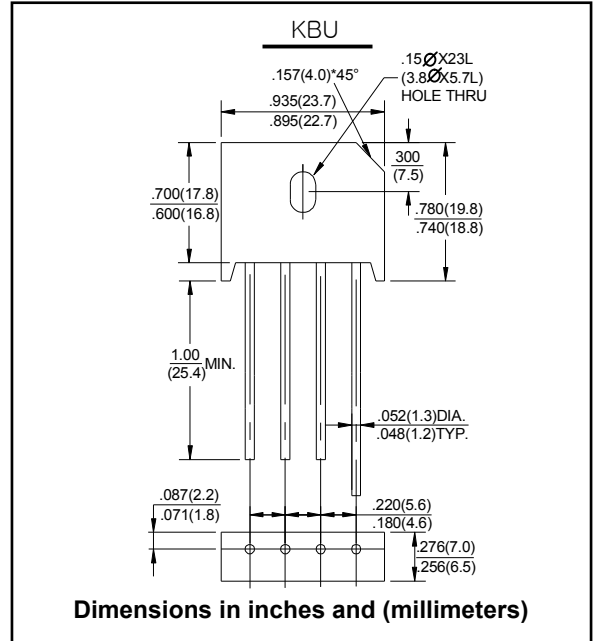
Reverse Voltage - 50 to 1000 Volts    Forward Current - 6.0 Ampere

### FEATURES

- Ideal for printed circuit board
- Surge overload rating: 200A peak
- High case dielectric strength
- High temperature soldering guaranteed:  
260°C/10 seconds at 5lbs. (2.3kg) tension

### MECHANICAL DATA

- Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
- Terminals: Plated leads solderable per  
MIL-STD 202, method 208
- Mounting Position: Any
- 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 current derate by 20%.

Characteristic	Symbol	KBU 6005	KBU 601	KBU 602	KBU 604	KBU 606	KBU 608	KBU 610	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$								V	
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000		
DC Blocking Voltage	$V_R$									
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V	
Average Rectified Output Current @ $T_C = 100^\circ C$	$I_o$	6.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200								A
Forward Voltage (per element) @ $I_F = 3.0A$	$V_{FM}$	1.0								V
Peak Reverse Current @ $T_C = 25^\circ C$ At Rated DC Blocking Voltage @ $T_C = 100^\circ C$	$I_R$	10 1.0								$\mu A$ mA
Rating for Fusing ( $t < 8.3ms$ ) (Note 1)	$I^2t$	166								$A^2s$
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	4.2								K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150								$^\circ C$

- Note: 1. Non-repetitive for  $t > 1ms$  and  $< 8.3ms$ .  
2. Thermal resistance junction to case per element mounted on PC board with 13.0x13.0x0.03mm thick land areas.



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## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

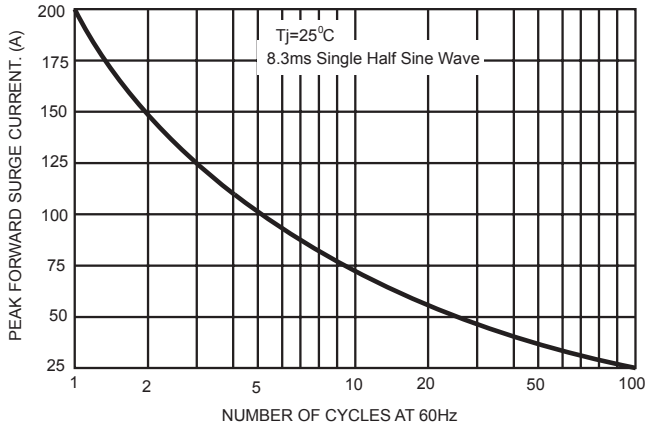


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

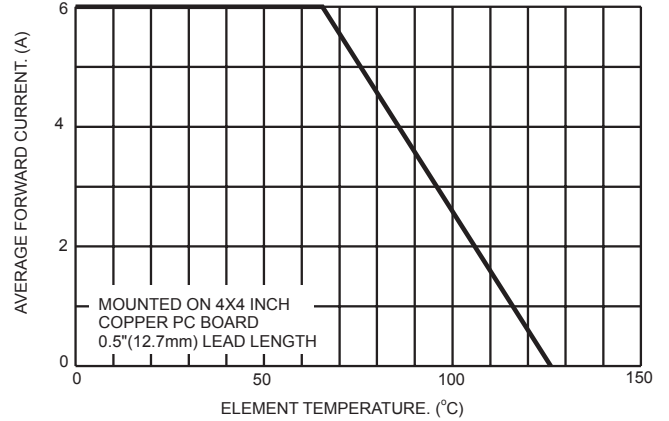


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

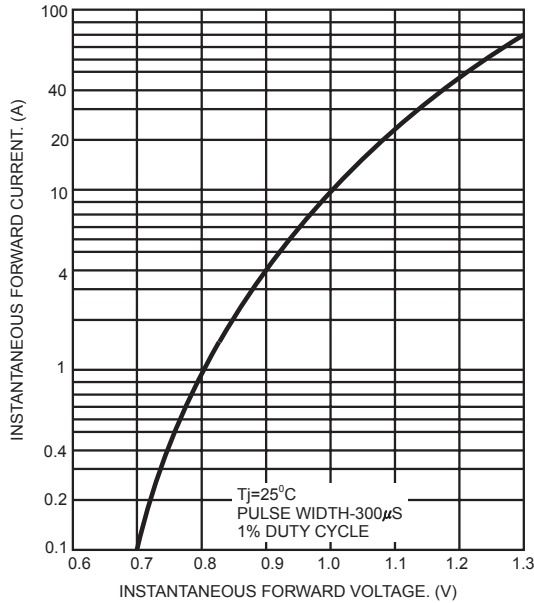


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

