



# KBU8005 THRU KBU810

## SINGLE PHASE SILICON BRIDGE RECTIFIER

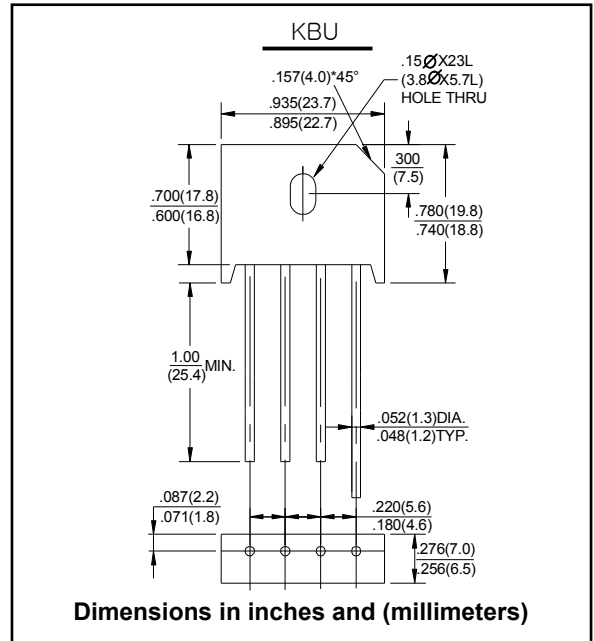
Reverse Voltage - 50 to 1000 Volts    Forward Current - 8.0 Ampere

### FEATURES

- Ideal for printed circuit board
- Surge overload rating: 300A 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 8005	KBU 801	KBU 802	KBU 804	KBU 806	KBU 808	KBU 810	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 @ $T_C = 100^\circ\text{C}$	$I_O$	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300							A
Forward Voltage (per element) @ $I_F = 4.0\text{A}$	$V_{FM}$	1.0							V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 100^\circ\text{C}$	$I_R$	10 1.0							$\mu\text{A}$ mA
Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note 1)	$I^2t$	373							$\text{A}^2\text{s}$
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	7.5							K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150							$^\circ\text{C}$

Note: 1. Non-repetitive for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .  
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

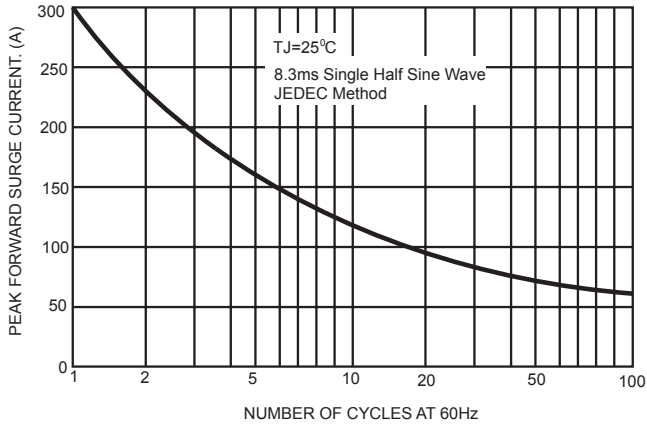


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

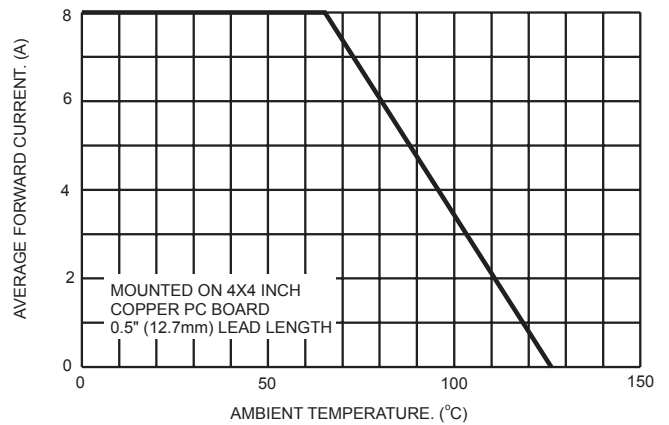


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

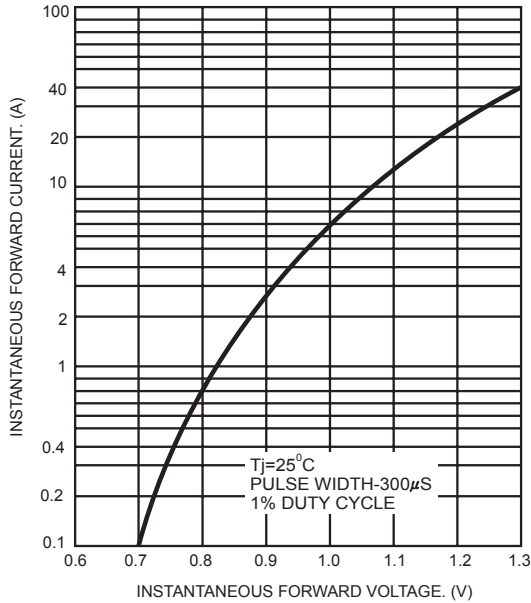


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

