



# KBU8005 THRU KBU810

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

## SILICON BRIDGE RECTIFIERS

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### Mechanical Data

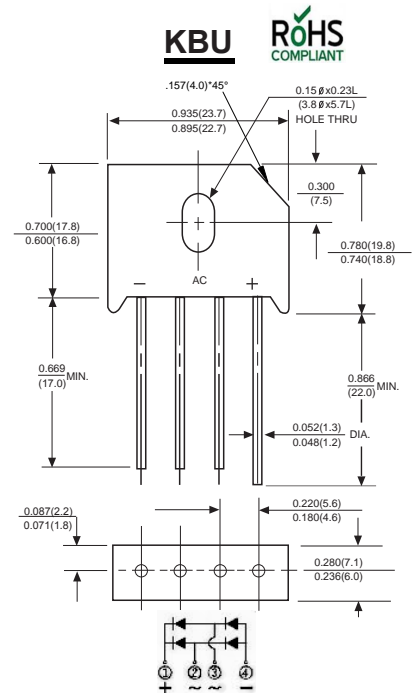
**Case :** JEDEC KBU Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.3ounce, 8.0grams



Dimensions in inches and (millimeters)

### 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%.

Parameter	SYMBOLS	MDD KBU8005	MDD KBU801	MDD KBU802	MDD KBU804	MDD KBU806	MDD KBU808	MDD KBU810	UNITS
Marking Code									
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward output rectified current at $T_A=50^\circ\text{C}$	$I_{(AV)}$	8.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300							A
Maximum instantaneous forward voltage drop per bridge element at 8.0A	$V_F$	1.1							V
Maximum DC reverse current $T_A=25^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
at rated DC blocking voltage $T_A=125^\circ\text{C}$		0.5							mA
Typical Junction Capacitance (Note 1)	$C_J$	200							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.7							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150							$^\circ\text{C}$
storage temperature range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

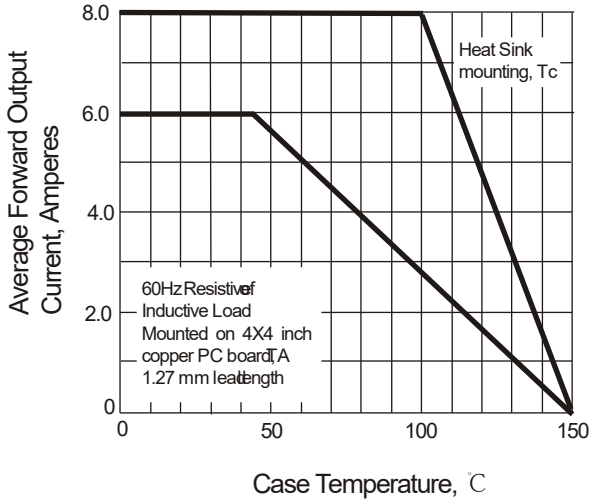
NOTES:

1. Thermal resistance from Junction to Ambient on P.C. board mounting.

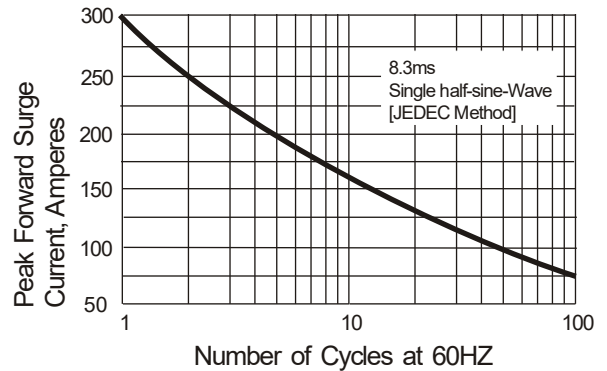


## Ratings And Characteristic Curves

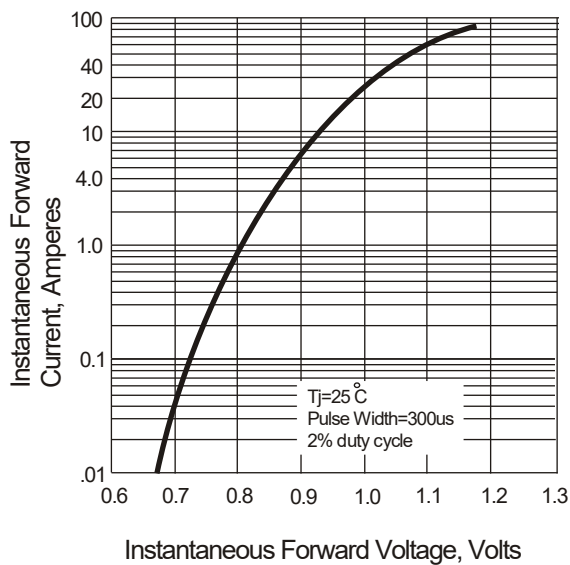
**Fig. 1 Derating Curve for Output Rectified Current**



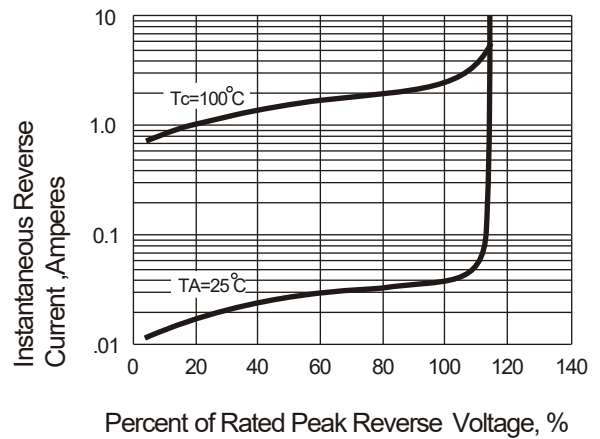
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



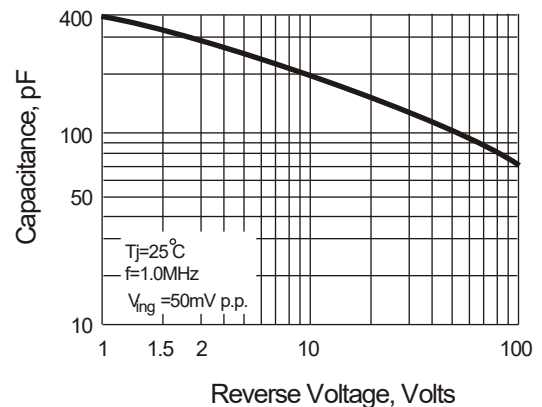
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**



The curve above is for reference only.