

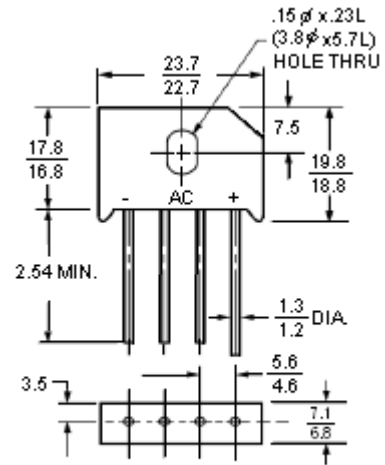
# KBU8005 THRU KBU810

## SINGLE – PHASE BRIDGE RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 8.0 Amperes

**KBU**



Dimensions in mm

### Features

- Ideal for printed circuit board.
- Reliable low cost construction utilizing molded plastic technique
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

### Features

- Case: Molded plastic, KBU

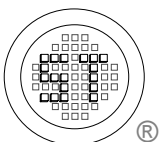
### Absolute Maximum Ratings and Characteristics

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%.

	Symbols	KBU 8005	KBU 801	KBU 802	KBU 804	KBU 806	KBU 808	KBU 810	Units
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 rectified current 0.375" (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$ .	$I_{(AV)}$	8							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	300							A
Maximum forward voltage at 8.0A DC and 25°C	$V_F$	1.1							V
Maximum reverse current at $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	$I_R$	10 50							$\mu\text{A}$ $\mu\text{A}$
Typical thermal resistance (Note 1)	$R_{\theta JA}$	18							$^\circ\text{C}/\text{W}$
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3							$^\circ\text{C}/\text{W}$
Operating and storage temperature range	$T_J, T_S$	-55 to +125							$^\circ\text{C}$

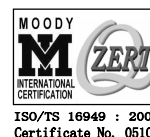
1) Units mounted in free air, no heatsink, P.C.B. at 0.375" (9.5mm) lead length with 0.5x0.5" (12x12mm) copper pads.

2) Units mounted on a 3.0x3.0" x 0.11" thick (7.5x7.5x0.3cm) Al. Plate heatsink.



**SEMTECH ELECTRONICS LTD.**

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

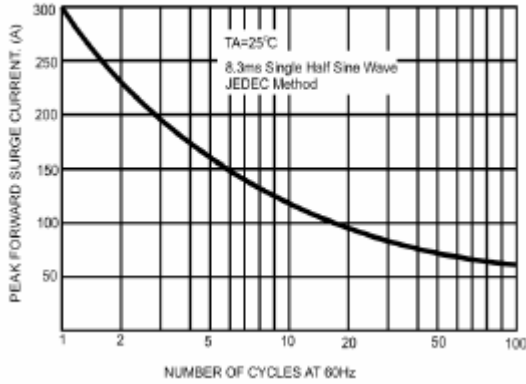


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

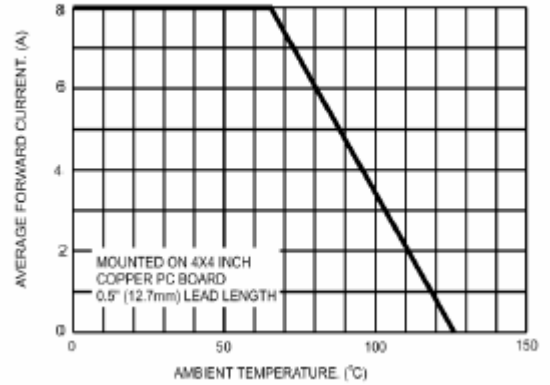


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

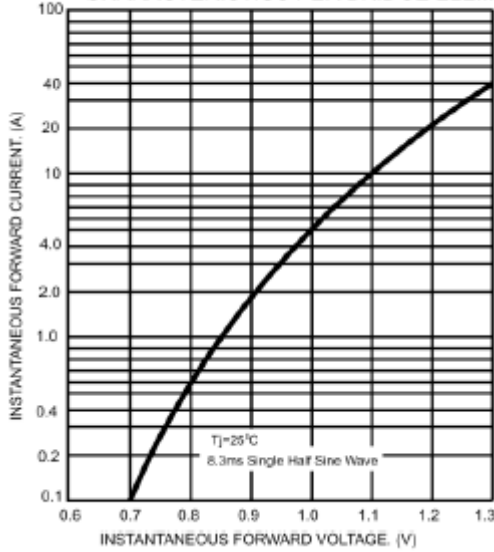
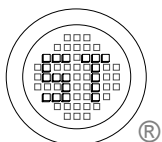
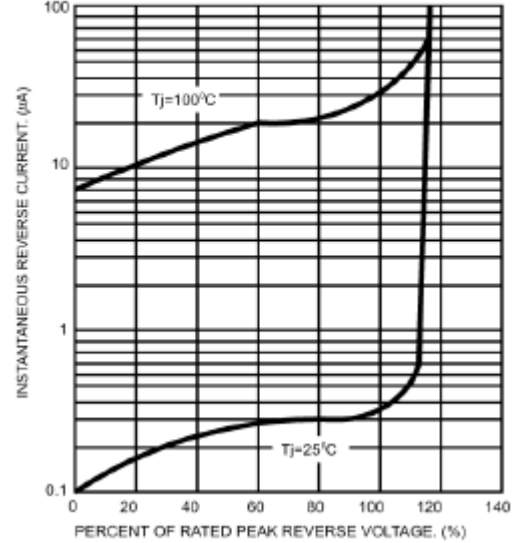
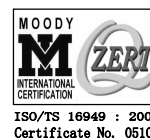


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



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