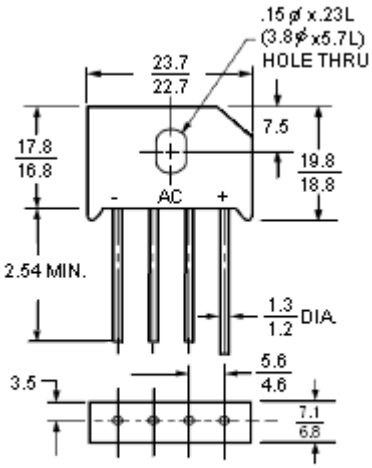
KBU8005 THRU KBU810

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°Cambient 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℃.	$I_{(AV)}$	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℃	V_F	1.1							V
Maximum reverse current at T_A = 25℃ at rated DC blocking voltage T_A = 100℃	I_R	10 50							μA μA
Typical thermal resistance (Note 1)	$R_{\Theta JA}$	18							℃/W
Typical thermal resistance (Note 2)	$R_{\Theta JC}$	3							℃/W
Operating and storage temperature range	T_J ,T_S	-55 to +125							℃

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.

(Subsidiary of Semtech International Holdings Limited, acompany listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103

ISO 14001 Certificate No. 7116

ISO 9001 : 2000

Dated : 30/06/2005 H

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

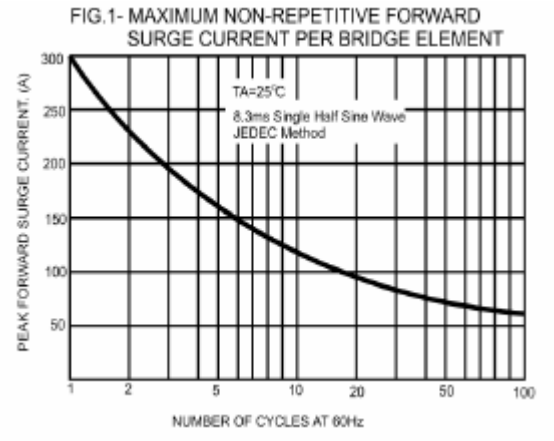

FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

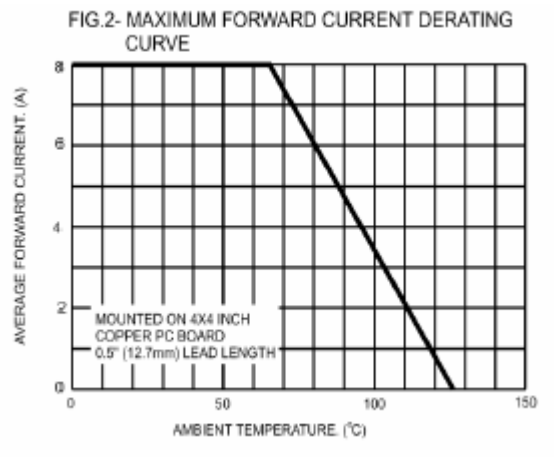

FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

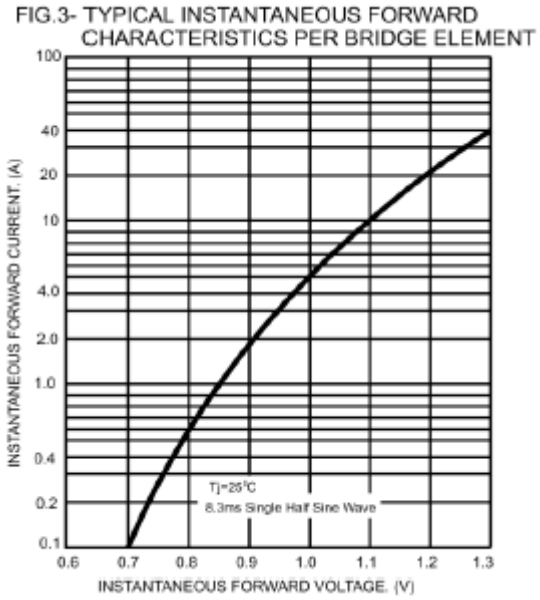

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT