

# KBU6005 THRU KBU610

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

REVERSE VOLTAGE: 50 to 1000 V

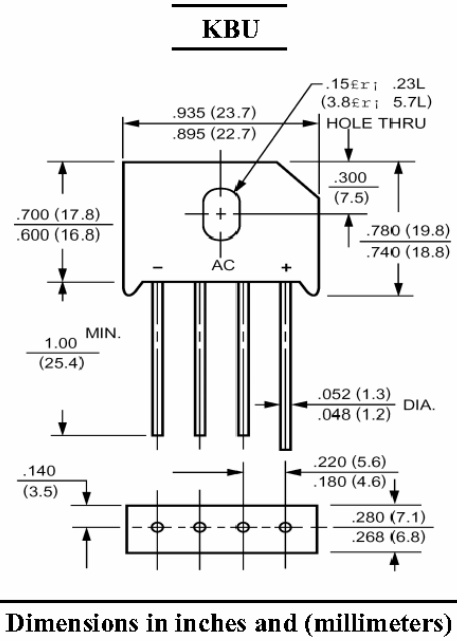
FORWARD CURRENT: 6 A

### Features

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

### Mechanical Data

- Case: Molded plastic, KBU
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: leads solderable per MIL-STD-202, Method 208 guaranteed
- Mounting Position: Any

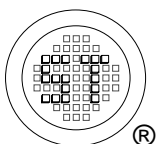


### Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

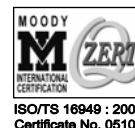
Parameter	Symbols	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead Length at $T_A = 65^\circ\text{C}$	$I_{(AV)}$	6							A
Peak Forward Surge Current 8.3 ms Single Half-sine -wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	200							A
Maximum Forward Voltage at 6 A	$V_F$	1							V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$
Typical Thermal Resistance <sup>1)</sup>	$R_{\theta JA}$	8.6							$^\circ\text{C/W}$
Typical Thermal Resistance <sup>1)</sup>	$R_{\theta JL}$	3.1							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_S$	-55 to +125							$^\circ\text{C}$

<sup>1)</sup> Thermal resistance from junction to ambient with units in free air, mounted on P.C.B with 0.5 X 0.5" (12 X 12 mm) copper pads, 0.375"(9.5mm) Lead Length.

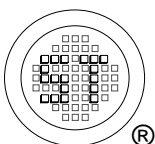
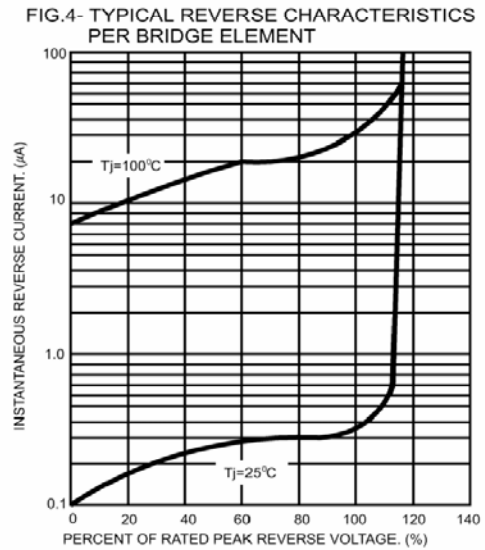
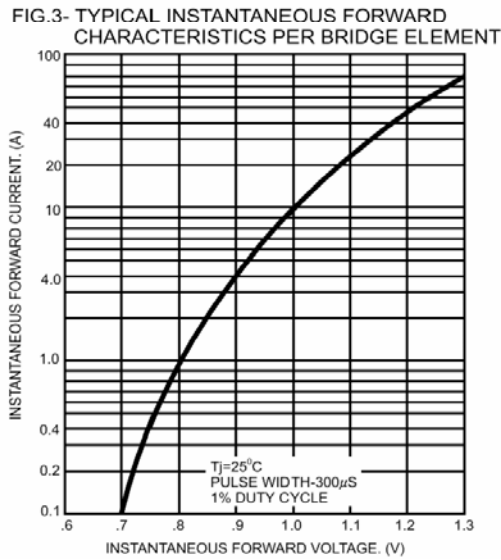
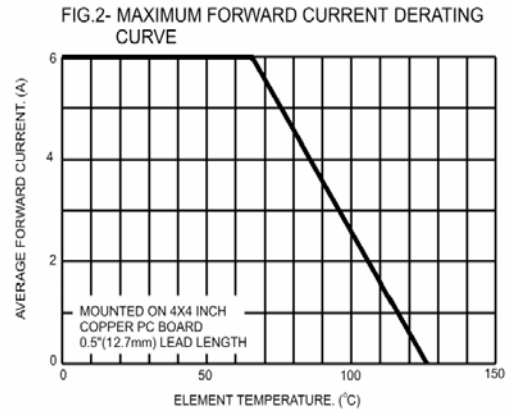
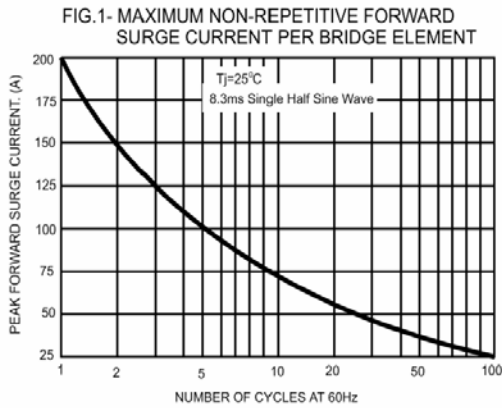


**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098