# KBL6005THRU KBL610

## SINGLE-PHASE SILICON BRIDGE RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS FORWARD CURRENT: 6.0 AMPERE

#### **FEATURES**

· Reliable low cost construction utilizing molded plastic technique

· Ideal for printed circuit board

· Low forward voltage drop

· Low reverse leakage current

· High surge current capability

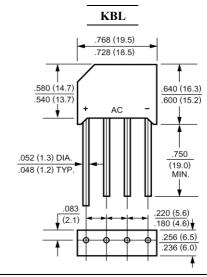
#### **MECHANICAL DATA**

Case: Molded plastic, KBL

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202,

method 208 guaranteed Mounting position: Any Weight: 0.2ounce, 5.6gram



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T $_A$ =50	I <sub>(AV)</sub>				6.0				Amp
Peak Forward Surge Current,									
8.3ms single half-sine-wave	$I_{FSM}$	I <sub>FSM</sub> 250							Amp
superimposed on rated load (JEDEC method)									
Maximum Forward Voltage	$V_{\rm F}$	1.1							Volts
at 4.0A DC and 25	v <sub>F</sub>								
Maximum Reverse Current at T <sub>A</sub> =25	т				10.0				4
at Rated DC Blocking Voltage T <sub>A</sub> =100	$I_R$	500							uAmp
Typical Junction Capacitance (Note 1)	$C_{J}$	40							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	19							<b>/W</b>
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	2.4							/W
Operating and Storage Temperature Range	T <sub>J</sub> , Tstg				-55 to +12	5			

#### NOTES:

- 1- Measured at 1  $MH_Z$  and applied reverse voltage of 4.0 VDC.
- 2- Thermal resistance from junction to ambient with units mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. plate
- 3- Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads



### RATINGS AND CHARACTERISTIC CURVES

