

**Kingtronics**®**KBL4005 THRU  
KBL410****SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS**  
**REVERSE VOLTAGE 50 to 1000 Volts    FORWARD CURRENT 4.0 Ampere****FEATURES**

Ideal for printed circuit board mounting  
 The plastic material used carries Underwriters Laboratory flammability recognition 94V-0  
 Built-in printed circuit board stand-offs  
 High case dielectric strength  
 High temperature soldering guaranteed 260°C /5 seconds at 5 lbs (2.3kg) tension

**MECHANICAL DATA**

Case: Reliable low cost construction utilizing molded plastic technique  
 Terminals: Plated leads solderable per MIL-STD-202, Method 208  
 Mounting Position: Any

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.

For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS bridge input 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 output current at $T_C = 100^\circ\text{C}$ (with heatsink)	$I_{F(AV)}$	4.0							A
Peak Forward Surge Current single sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	135							A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2 t$	95							$\text{A}^2\text{sec}$
Operating junction and storage temperature	$T_J, T_{STG}$	-55 to +150							°C

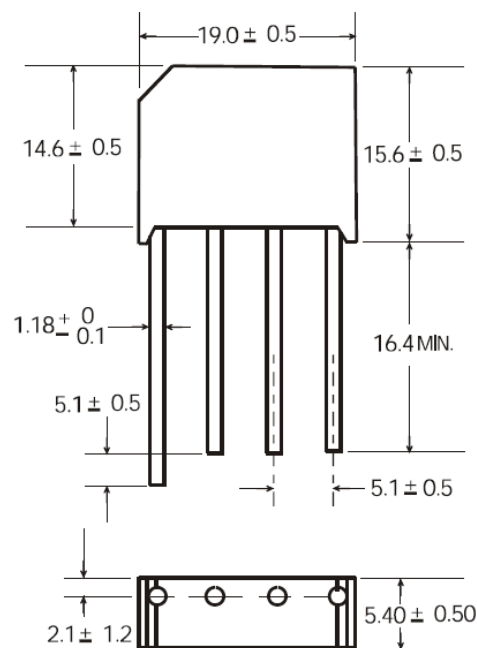
**Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.

For Capacitive load derate by 20 %.

PARAMETER	SYMBOL	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410	UNIT
Maximum instantaneous forward voltage drop per leg at 4.0A	$V_F$	1.1							V
Maximum Reverse Current at Rated $T_A = 25^\circ\text{C}$ DC Blocking voltage $T_A = 125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$

Notes: (1) Thermal resistance from Junction to Ambient on P.C. board mounting.

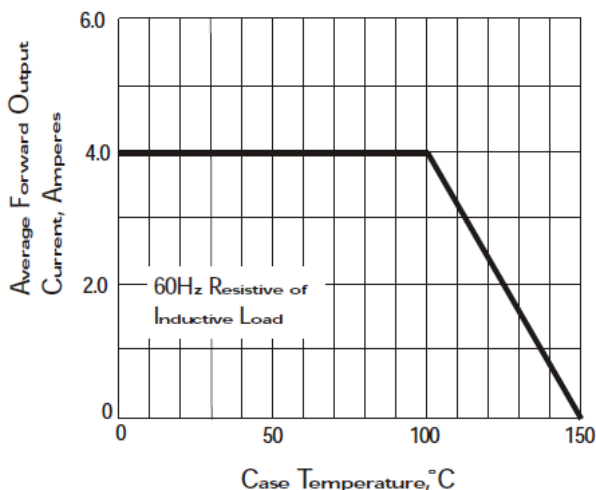
**KBL****Dimensions in millimeters**

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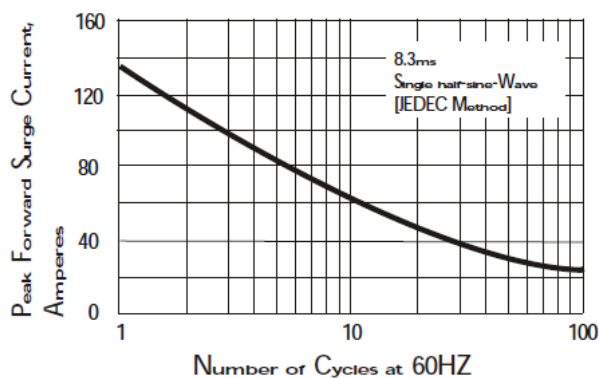
# KBL4005 THRU KBL410

## RATINGS AND CHARACTERISTIC CURVES

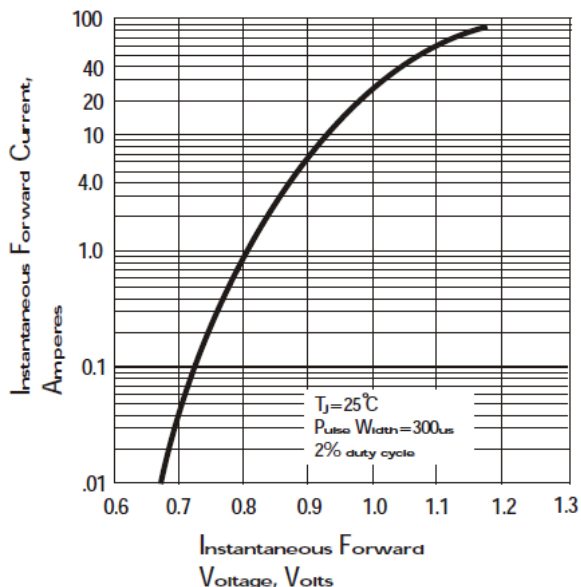
**Fig. 1 Derating Curve for Output Rectified Current**



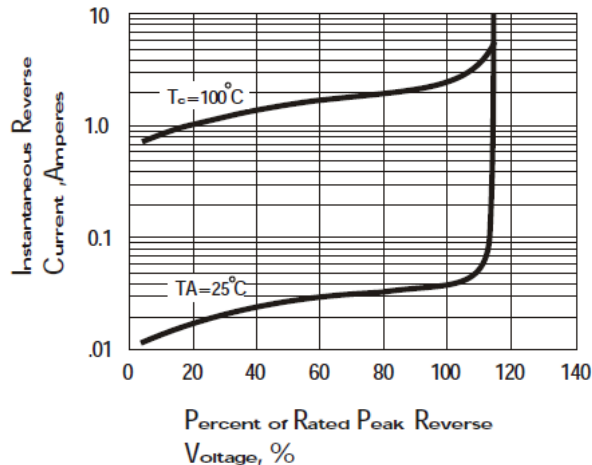
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



Note: Specifications are subject to change without notice.

**Kingtronics® International Company**

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