



# KBL400 ~ KBL4010

## IN-LINE MINIATURE SINGLE PHASE SILICON BRIDGE RECTIFIER

**VOLTAGE** 50 to 1000 Volts **CURRENT** 4.0 Amperes

**KBL** Unit: inch (mm)

### FEATURES

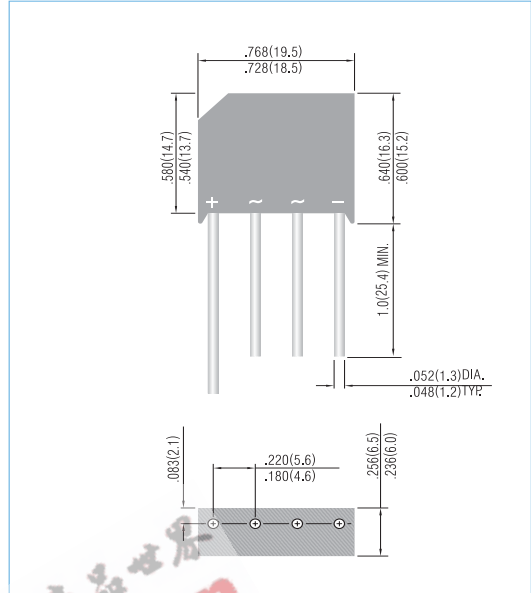
- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 200 Amperes peak
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

Terminals: Leads solderable per MIL-STD-750, Method 2026

Mounting position: Any

Weight: 0.2 ounce, 5.6 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	KBL400	KBL401	KBL402	KBL404	KBL406	KBL408	KBL4010	UNITS
Maximum Recurrent 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 Current For Resistive Load at $T_A=50^\circ\text{C}$	$I_{F(AV)}$	4.0							A
Peak One Cycle Surge Overload Current	$I_{FSM}$	200							A
Maximum Forward Voltage per Bridge Element at 4.0A	$V_F$	1.1							V
Maximum Reverse Leakage Current at Rated @ $T_A=25^\circ\text{C}$ Dc Blocking Voltage @ $T_A=100^\circ\text{C}$	$I_R$	10 1000							$\mu\text{A}$
$I^2t$ Rating for fusing ( $t < 8.35\text{ms}$ )	$I^2t$	93							$\text{A}^2\text{t}$
Typical Thermal Resistance per leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	19 2.4							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

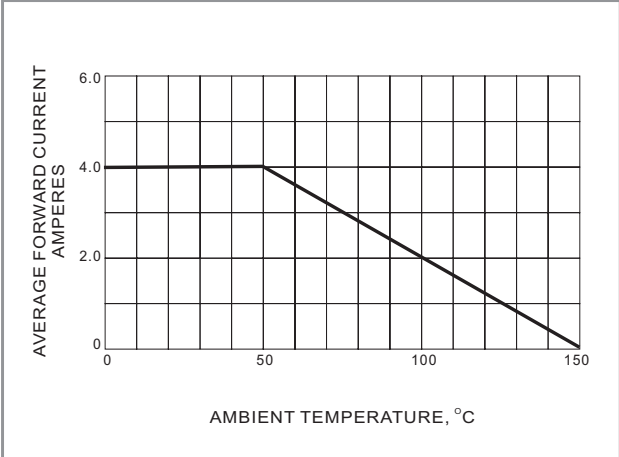
#### NOTES:

1. Thermal resistance from junction to ambient with units mounted on 0.3 x 0.3 x 0.11" thick ( 7.5 x 7.5 x 0.3cm) AL Plate.
2. Thermal resistance from junction to lead with units mounted on P.C.B with 0.375" ( 9.5mm) lead length and 0.5 x 0.5" ( 12 x 12 mm) copper pads.

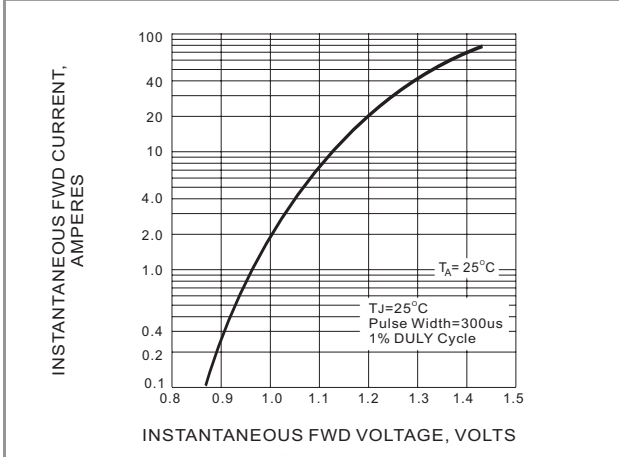


# KBL400 ~ KBL4010

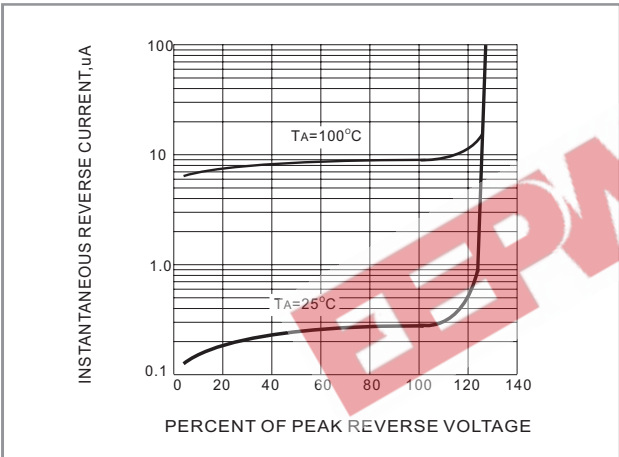
## RATING AND CHARACTERISTIC CURVES



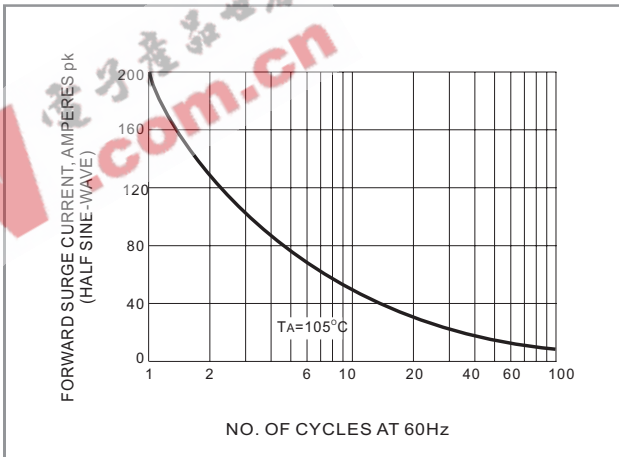
**FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 MAX NON-REPETITIVE SURGE CURRENT**

### LEGAL STATEMENT

**Copyright PanJit International, Inc 2005**

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.