



# **KBL400 ~ KBL4010**

### IN-LINE MINIATURE SINGLE PHASE SILICON BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT 4.0 Amperes

## **FEATURES**

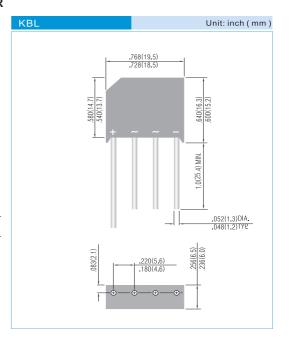
- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 200 Amperes peak
- Pb free product are available: 99% Sn above can meet RoHS environment substance 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°Cambient 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	٧
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current For Resistive Load at $T_{\rm A}$ =50°C	I <sub>F(AV)</sub>	4.0							А
Peak One Cycle Surge Overload Current	I <sub>FSM</sub>	200						Α	
Maximum Forward Voltage per Bridge Element at 4.0A	V <sub>F</sub>	1.1							٧
Maximum Reverse Leakage Current at Rated @ T <sub>A</sub> =25°C Dc Blocking Voltage @ T <sub>A</sub> =100°C	I <sub>R</sub>	10 1000							μΑ
I <sup>2</sup> t Rating for fusing ( t<8.35ms)	l²t	93							A²t
Typical Thermal Resistance per leg (Note 1) (Note 2)	R <sub>eja</sub> R <sub>ejl</sub>	19 2.4							°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

#### NOTES:

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

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# **RATING AND CHARACTERISTIC CURVES**

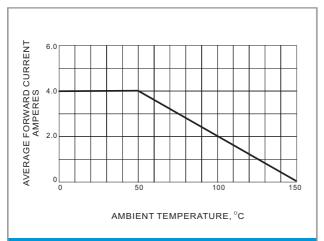


FIG.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

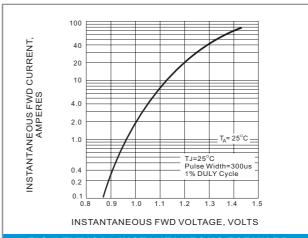


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

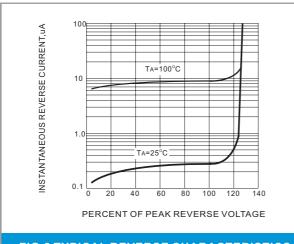


FIG.3 TYPICAL REVERSE CHARACTERISTICS

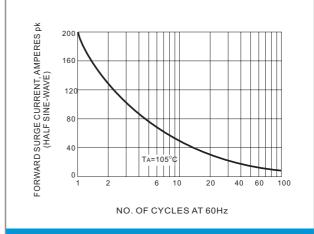


FIG.4 MAX NON-REPETITIVE SURGE CURRENT

# **LEGAL STATEMENT**

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