KBL400 ~ KBL4010

IN-LINE MINIATURE SINGLE PHASE SILICON BRIDGE RECTIFIER

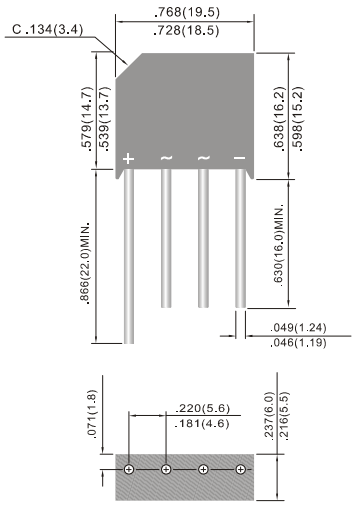
VOLTAGE 50 to 1000 Volt **CURRENT** 4 Ampere

Recongnized File # E228882

FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Lead free in compliance with EU RoHS 2011/65/EU directive

FL/KBL Unit: inch (mm)



MECHANICAL DATA

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

Weight: 0.167 ounce, 4.77 grams

Marking: Part number

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_{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°C	$I_{F(AV)}$	4							A
Peak One Cycle Surge Overload Current	I_{FSM}	150							A
Maximum Forward Voltage per Bridge Element at 4A	V_F	1.1							V
Maximum Reverse Leakage Current at Rated @ T_J=25°C Dc Blocking Voltage @ T_J=100°C	I_R	10 1000							μA
I^2t Rating for fusing (t<8.35ms)	I^2t	93							A^2t
Typical Thermal Resistance per leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	19 2.4							°C/W
Operating Junction and Storage Temperature Range	T_J , T_{STG}	-55 to + 150							°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.

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RATING AND CHARACTERISTIC CURVES

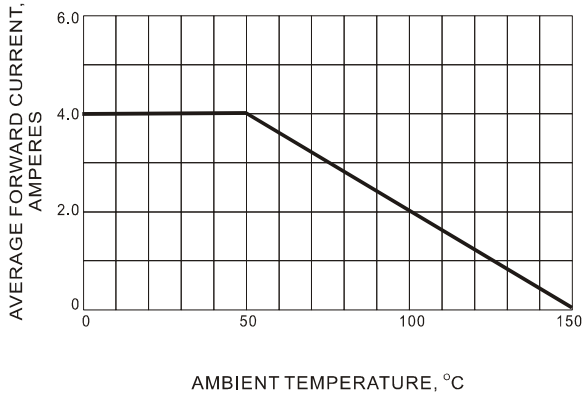

FIG.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

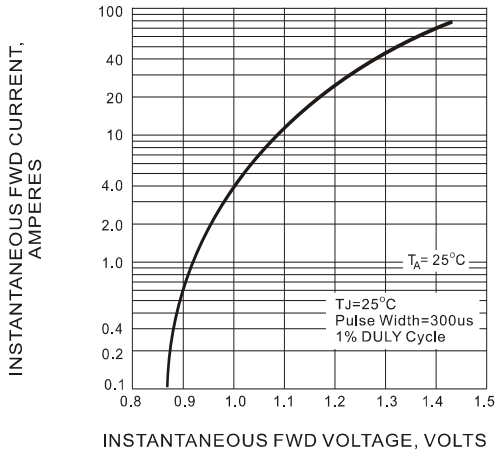

FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

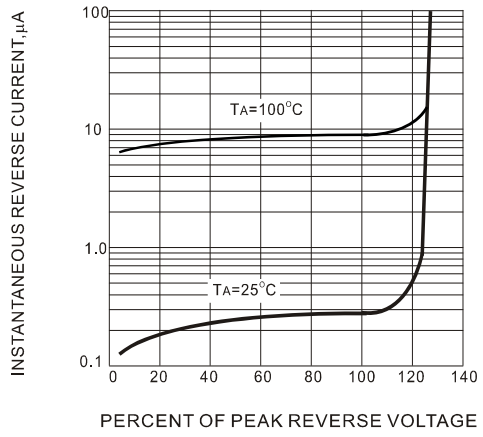

FIG.3 TYPICAL REVERSE CHARACTERISTICS

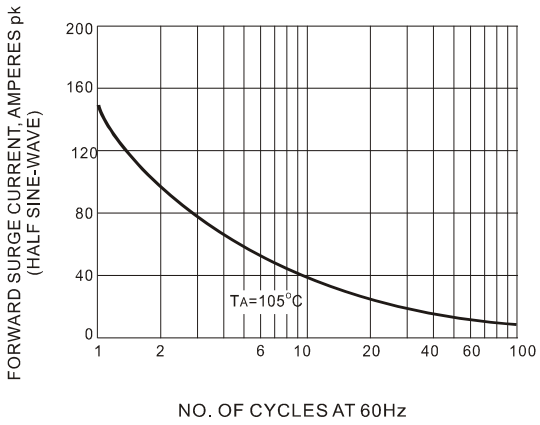

FIG.4 MAX NON-REPETITIVE SURGE CURRENT