



KBL400 ~ KBL4010

IN-LINE MINIATURE SINGLE PHASE SILICON BRIDGE RECTIFIER

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

KBL Unit: inch (mm)

FEATURES

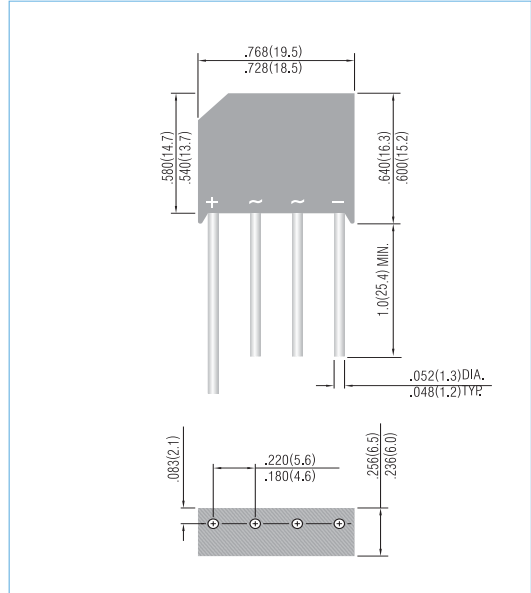
- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 200 Amperes peak
- Pb free product are available : 99% Sn above can meet RoHS environment substance 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							μA
I^2t Rating for fusing ($t < 8.35\text{ms}$)	I^2t	93							A^2t
Typical Thermal Resistance per leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	19 2.4							$^\circ\text{C}/\text{W}$
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.



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RATING AND CHARACTERISTIC CURVES

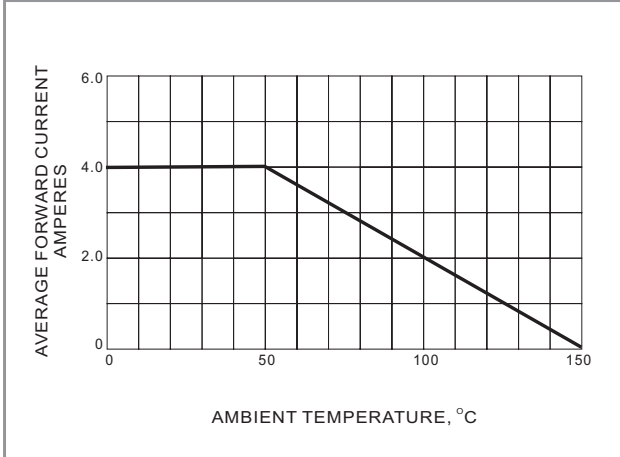


FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

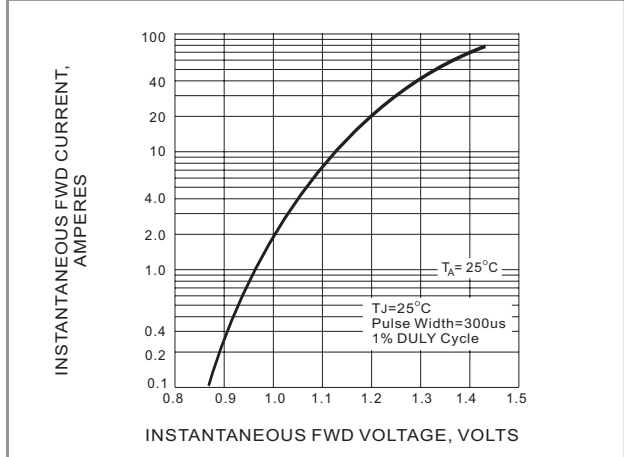


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

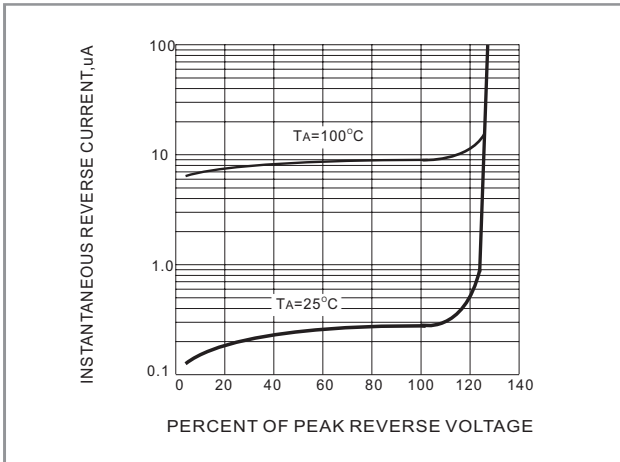


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

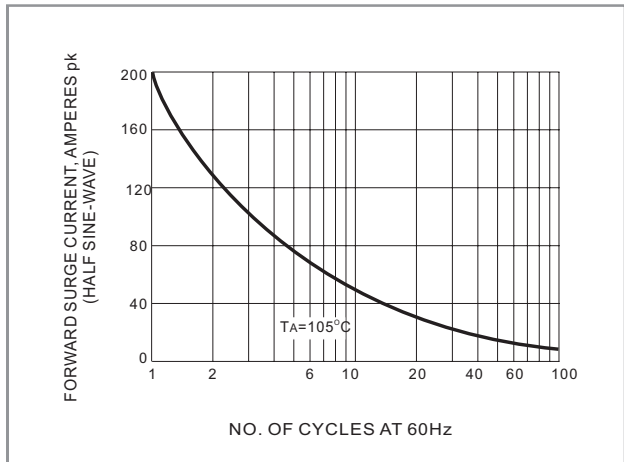


FIG. 4 MAX NON-REPETITIVE SURGE CURRENT

LEGAL STATEMENT

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