

KBL4005 THRU KBL410

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 4.0 Ampere

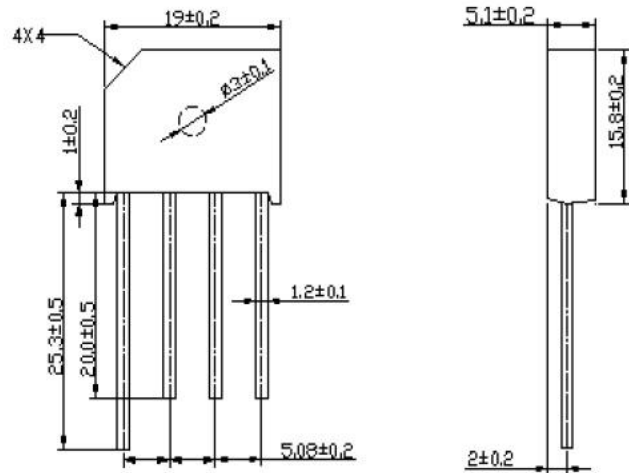
FEATURES

- ◆ 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

KBL



Dimensions in inches and (millimeters)

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							A^2sec
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

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	VF	1.1							V
Maximum Reverse Current at Rated $T_A = 25^\circ\text{C}$ DC Blocking voltage $T_A = 125^\circ\text{C}$	IR	10 500							μA

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

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RATING AND CHARACTERISTIC CURVES KBL4005 THRU KBL410

Fig. 1 Derating Curve for Output Rectified Current

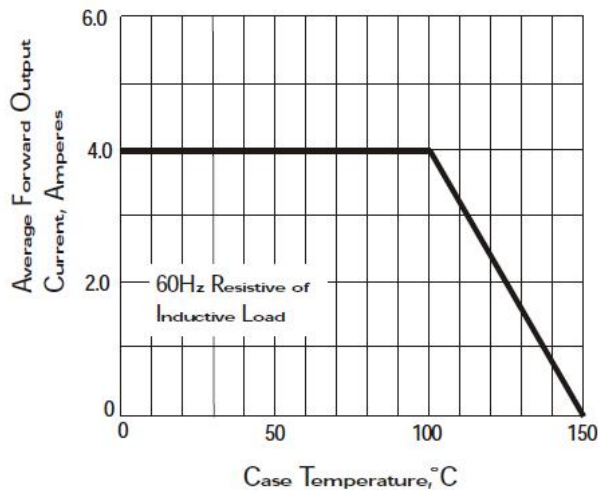


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

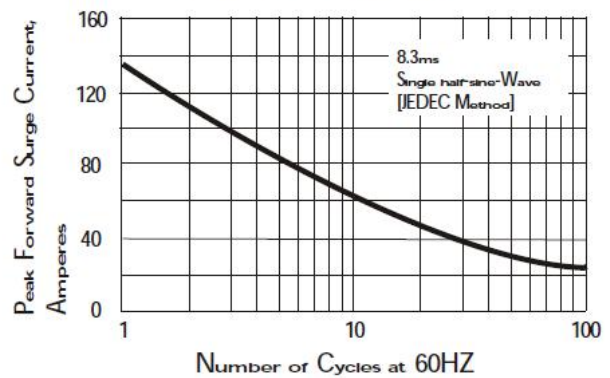


Fig. 3 Typical Instantaneous Forward Characteristics

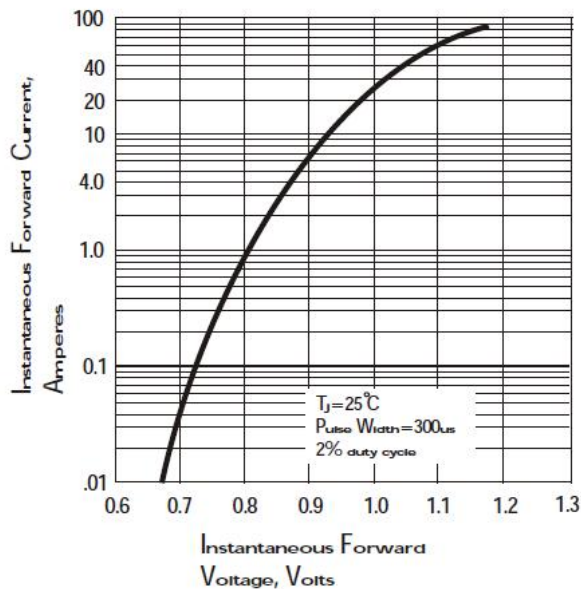
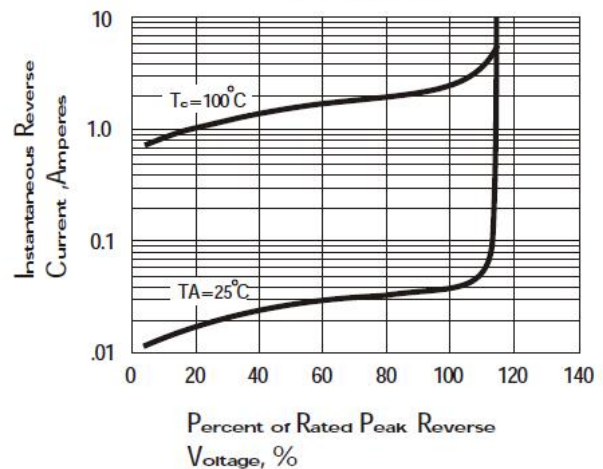


Fig. 4 Typical Reverse Characteristics



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.