



# KBL6005 ~ KBL610

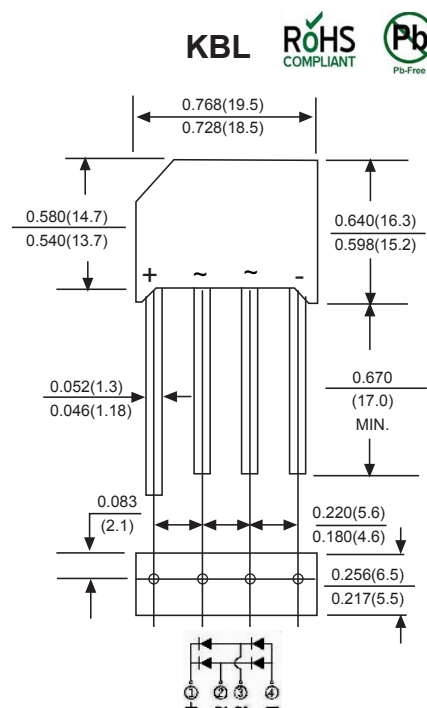
## Single Phase 6.0Amp Glass passivated Bridge Rectifiers

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### Mechanical data

- **Case** : JEDEC KBL Molded plastic body
- **Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity** : Polarity symbol marking on body
- **Mounting Position** : Any
- **Weight** : 0.22 ounce , 6.21 grams



Dimensions in inches and (millimeters)

## Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	KBL 6005	KBL 601	KBL 602	KBL 604	KBL 606	KBL 608	KBL 610	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS 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 current with heatsink	$I_{(AV)}$	6.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150.0							A
Rating for fusing (t=8.3ms, $T_A=25^\circ\text{C}$ )	$I_t^2$	93.4							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage at 6.0A	$V_F$	1.10							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
Typical junction capacitance (Note 1)	$C_J$	42.0							pF
Typical thermal resistance	$R_{qJA}$	20.0							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

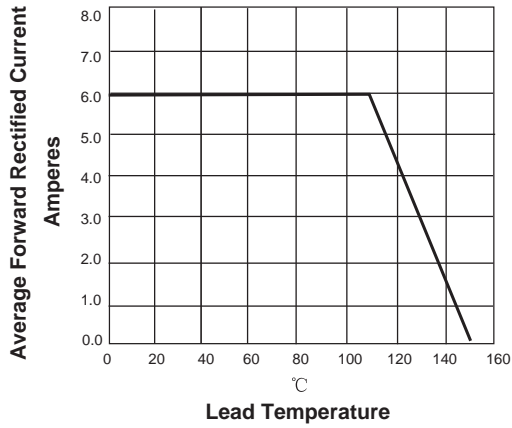


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

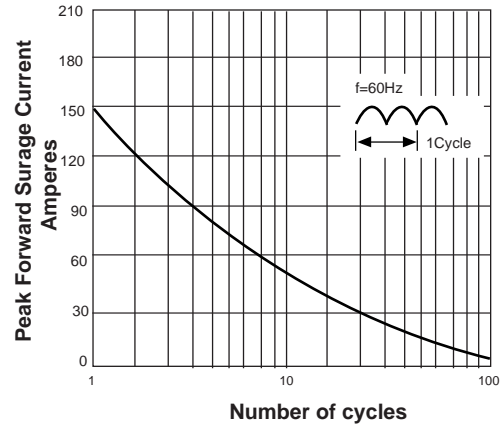


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

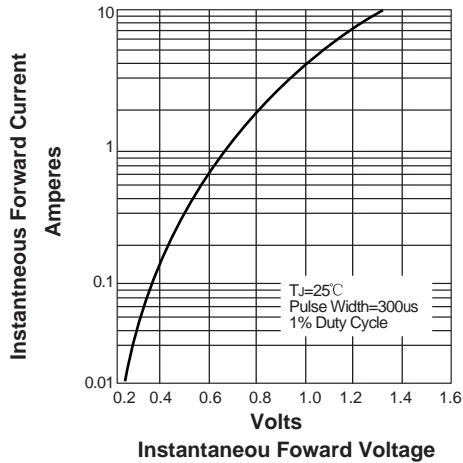
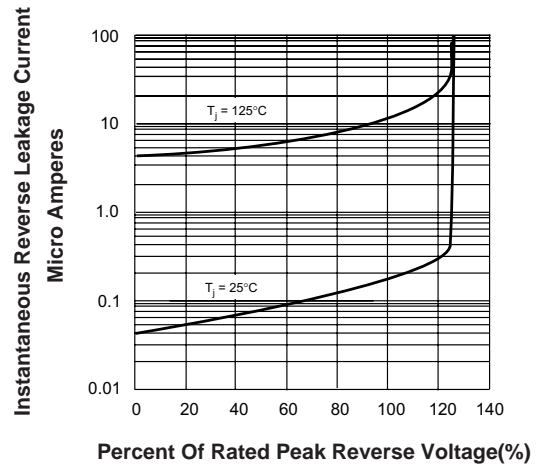


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



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