

# KBL4005~KBL410

## Single Phase 4.0Amp Glass passivated Bridge Rectifiers

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250°C/10 seconds at terminals

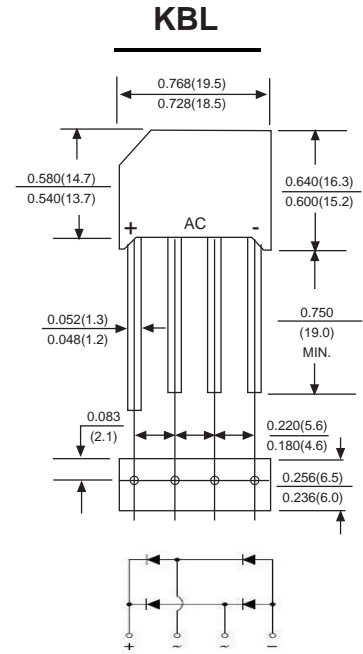
### Mechanical Data

**Case :** Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750,Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any



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 4005	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	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	$I_{(AV)}$	4.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	120.0							A
Rating for fusing ( $t=8.3ms, T_A=25^\circ C$ )	$I_t^2$	59.8							$A^2s$
Maximum instantaneous forward voltage at 4.0A	$V_F$	1.10							V
Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 125^\circ C$	$I_R$	5.0 500							$\mu A$
Typical junction capacitance (Note 1)	$C_J$	38.0							pF
Typical thermal resistance	$R_{qJA}$	55.0							$^\circ C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ C$

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

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### Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

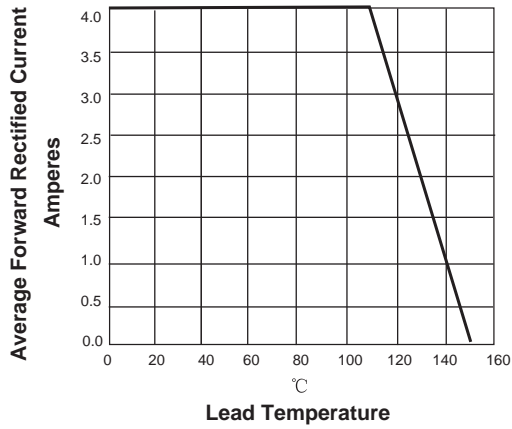


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

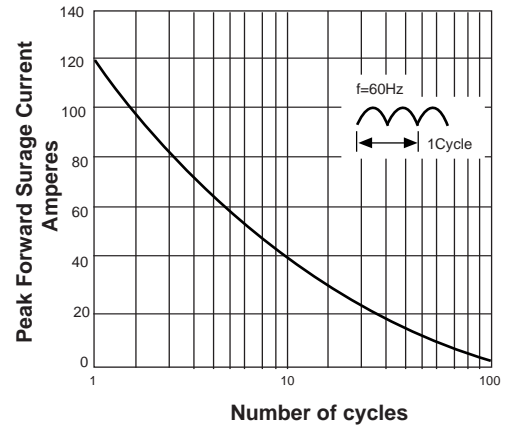


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

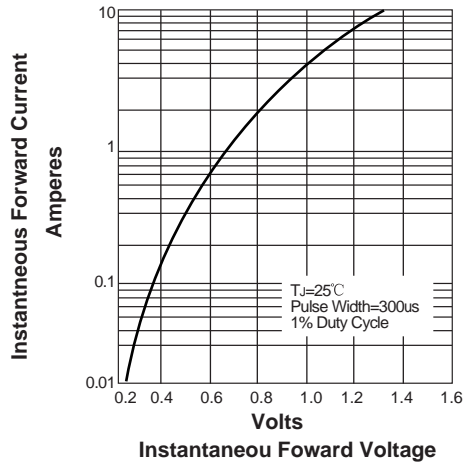


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

