

## **KBL005 - KBL10**

#### SINGLE PHASE BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 V CURRENT - 4 A

#### **FEATURES**

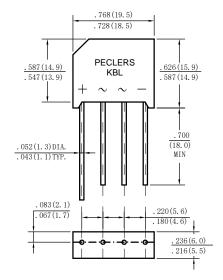
- Glass Passivated Chip Junction
- This series is UL recognized under component index ,file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:260 °C/10 second, 0.375" (9.5mm) lead length at 5 lbs.(2.3kg) tension.

## **MECHANICAL DATA**

• Case: Molded plastic, KBL

■ Terminal: Lead solderable per MIL-STD-202E method 208C

Mounting Postition: AnyWeight: 0.22ounce, 6.21gram



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 derate current by 20%.

			SYMBOLS	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	UNITS
Maximum Repetitive Peak Reverse Voltage			$V_{\text{RRM}}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage			$V_{\text{RMS}}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		$V_{DC}$	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Output Current, at	T <sub>C</sub> =50°C (Note 2) T <sub>A</sub> =50°C (Note 3)		$I_{(AV)}$	4.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)			$I_{FSM}$	150							Amps
Rating for Fusing (t<8.3ms)			$I^2t$	166							$A^2s$
Maximum Instantaneous Forward Voltage Drop per bridge element at 4.0A		$V_{\mathrm{F}}$	1.0							Volts	
Maximum DC Reverse Current DC blocking voltage per elemen		T <sub>A</sub> =25 °C	$ m I_R$	5							μAmps
	t	T <sub>A</sub> =100°C		1.0							mAmps
Typical Junction Capacitance (Note 1)		$\mathbf{C}^{\mathbf{J}}$	105							pF	
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	20							°C/W	
Operating and Storage Temperature Range			$T_J$ , $T_{STG}$	-55 to +150							°C

#### **NOTES:**

- 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2. Unit mounted on 3.0"x3.0"x0.11" thick (7.5x7.5x0.3 cm) Al. plate.
- 3. P.C. Board mount with 0.5"x0.5" (12x12cm) copper pads 0.375" (9.5mm) lead length



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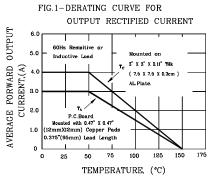
T<sub>J</sub> = T<sub>J max.</sub> Single Sine-Wave (JEDEC Method)

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FIG. 2 — Maximum Non-Repetitive

Peak Forward Surge Current Per Leg

## RATING AND CHRACTERISTIC CURVES



Peak Forward Surge Current (A) 50 Number of Cycles at 60 Hz FIG. 3 — Typical Forward FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

100

