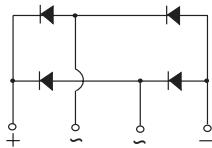
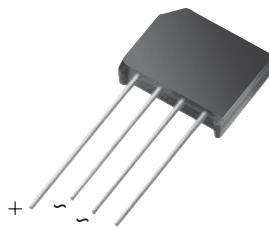


## Single-Phase Bridge Rectifier



Case Style KBL

### FEATURES

- UL Recognition file number E54214
- Ideal for printed circuit boards
- High surge current capability
- High case dielectric strength of 1500 V<sub>RMS</sub>
- Solder Dip 260 °C, 40 seconds
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



### TYPICAL APPLICATIONS

General purpose use in ac-to-dc bridge full wave rectification for Monitor, TV, Printer, SMPS, Adapter, Audio equipment, and Home Appliances applications.

### MECHANICAL DATA

**Case:** KBL

Epoxy meets UL 94V-0 flammability rating

**Terminals:** Silver plated (E4 Suffix) leads, solderable per J-STD-002B and JESD22-B102D

**Polarity:** As marked on body

**Mounting Torque:** 10 cm-kg (8.8 inches-lbs) max.

**Recommended Torque:** 5.7 cm-kg (5 inches-lbs)

MAJOR RATINGS AND CHARACTERISTICS	
I <sub>F(AV)</sub>	4 A
V <sub>RRM</sub>	50 V to 1000 V
I <sub>FSM</sub>	200 A
I <sub>R</sub>	5 µA
V <sub>F</sub>	1.1 V
T <sub>J</sub> max.	150 °C

MAXIMUM RATINGS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward current at T <sub>A</sub> = 50 °C	I <sub>F(AV)</sub>				4.0				A
Peak forward surge current single sine-wave superimposed on rated load	I <sub>FSM</sub>				200				A
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>				- 50 to + 150				°C

ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	UNIT
Maximum instantaneous forward drop per leg	at 4.0 A	V <sub>F</sub>				1.1				V
Maximum DC reverse current at rated DC blocking voltage per leg	T <sub>A</sub> = 25 °C T <sub>A</sub> = 125 °C	I <sub>R</sub>				5.0	1.0			µA mA

# KBL005 thru KBL10

Vishay General Semiconductor



## Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	UNIT
Typical thermal resistance per leg	$R_{\theta\text{JA}}$ $R_{\theta\text{JL}}$				19 <sup>(1)</sup>				$^\circ\text{C/W}$

**Note:**

(1) Thermal resistance from junction to ambient with units mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3 cm) Al. plate

(2) Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375" (9.5 mm) lead length and 0.5 x 0.5" (12 x 12 mm) copper pads

## Ordering Information

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
KBL06-E4/51	6.0	51	300	Anti-static PVC Tray

## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

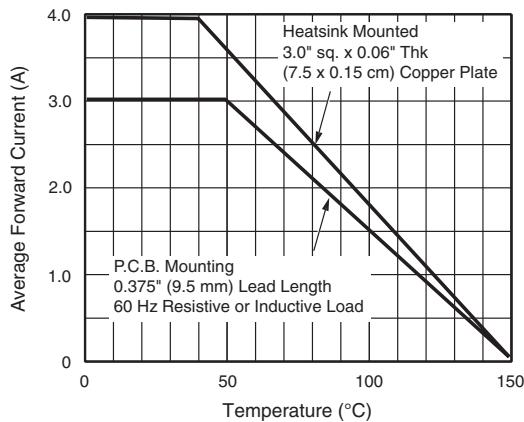


Figure 1. Derating Curve Output Rectified Current

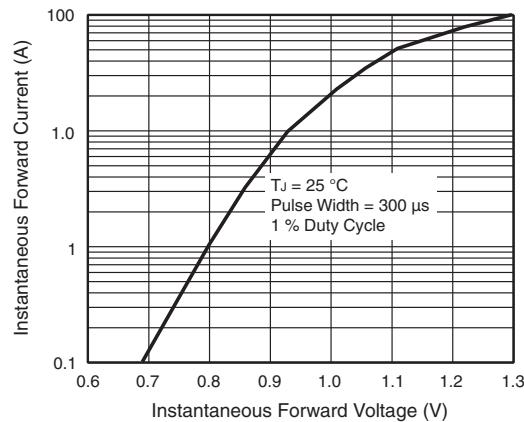


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

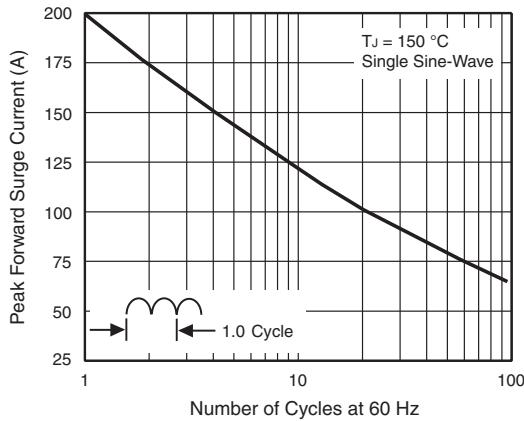


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

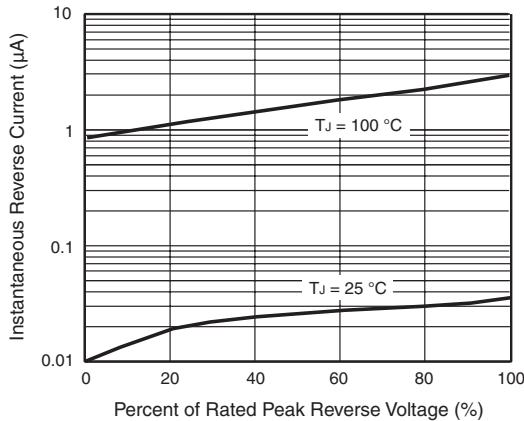


Figure 4. Typical Reverse Leakage Characteristics Per Leg

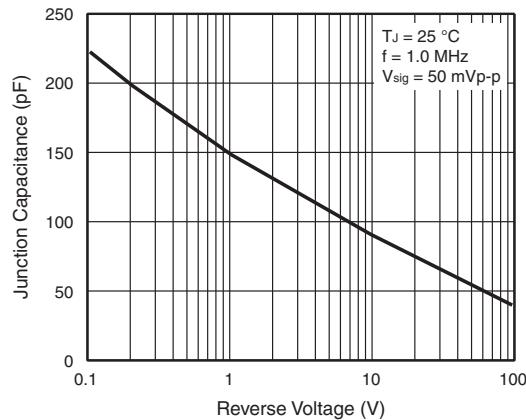
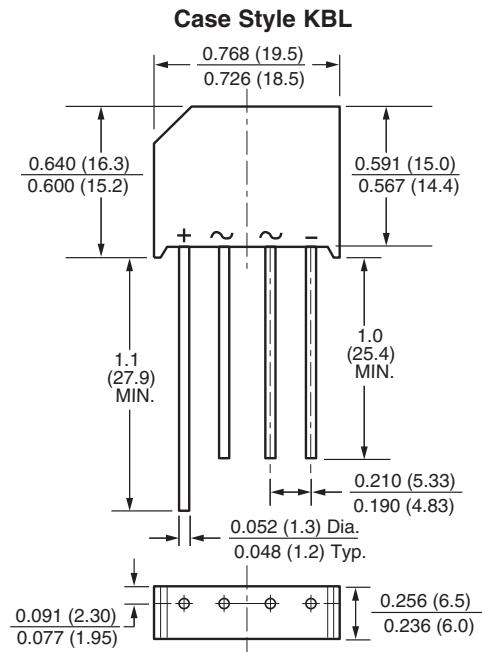


Figure 5. Typical Junction Capacitance Per Leg

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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