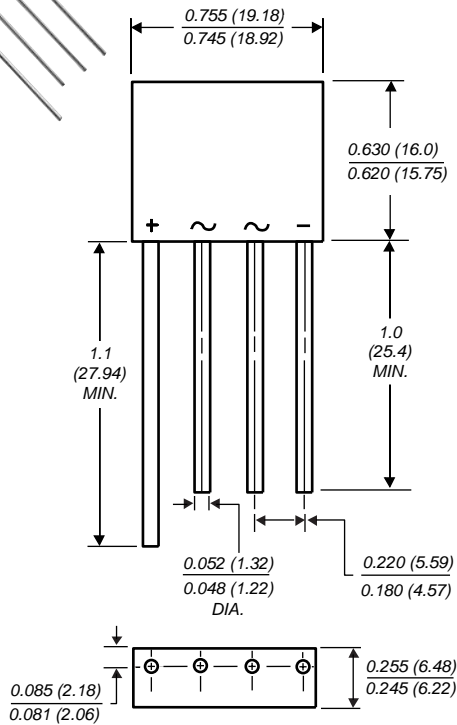


## Single-Phase Bridge Rectifier

**Reverse Voltage** 50 and 1000 V  
**Forward Current** 4.0 A

### Case Style KBL



Dimensions in inches and (millimeters)

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- High case dielectric strength of 1500 VRMS
- Ideal for printed circuit boards
- High forward surge current capability
- High surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

### Mechanical Data

**Case:** Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Mounting Position:** Any

**Weight:** 0.2 oz., 5.6 g

**Packaging codes/options:**  
1/300 EA. per Bulk Tray Stack

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	KBL 005	KBL 01	KBL 02	KBL 04	KBL 06	KBL 08	KBL 10	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 output current at $T_A=50^\circ\text{C}$	$I_{F(AV)}$	4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	$I_{FSM}$	200							A
Typical thermal resistance per leg (NOTE 1) (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	19 2.4							$^\circ\text{C/W}$
Operating junction storage and temperature range	$T_J, T_{STG}$	-50 to +150							$^\circ\text{C}$

### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

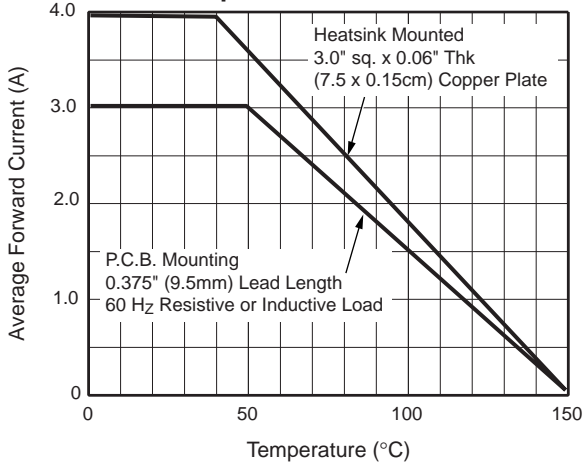
Maximum instantaneous forward drop per leg at 4.0 A	$V_F$	1.1							V
Maximum DC reverse current at rated DC blocking voltage per leg	$I_R$	5.0 1.0							$\mu\text{A}$ mA

**Notes:**

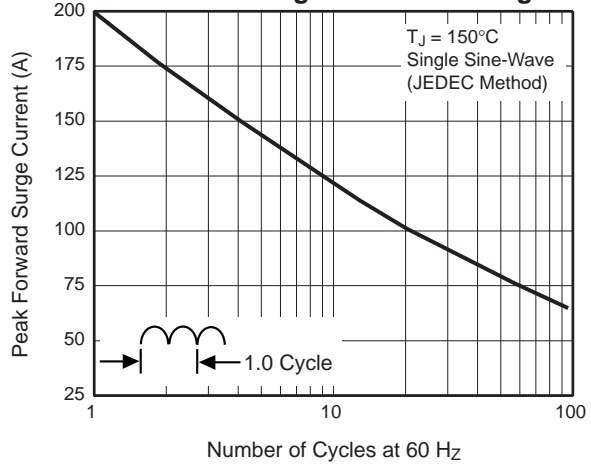
- (1) Thermal resistance from junction to ambient with units mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. plate
- (2) Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads

## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

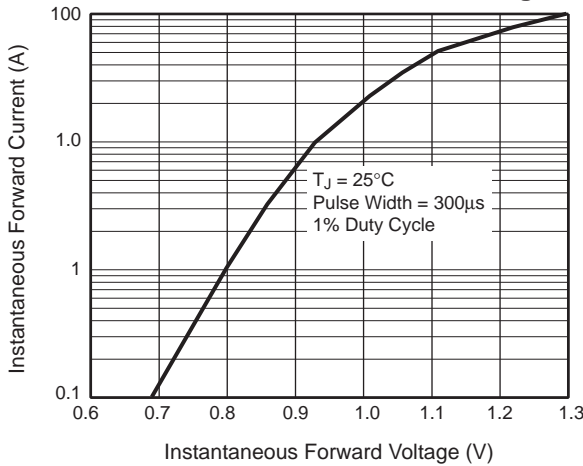
**Fig. 1 – Derating Curve  
Output Rectified Current**



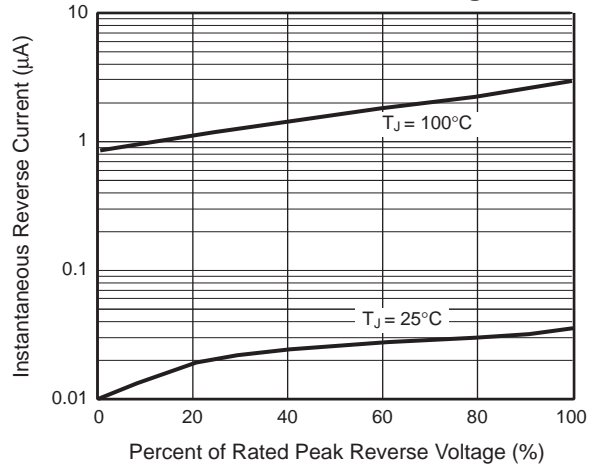
**Fig. 2 – Maximum Non-Repetitive Peak  
Forward Surge Current Per Leg**



**Fig. 3 – Typical Instantaneous  
Forward Characteristics Per Leg**



**Fig. 4 – Typical Reverse Leakage  
Characteristics Per Leg**



**Fig. 5 – Typical Junction  
Capacitance Per Leg**

