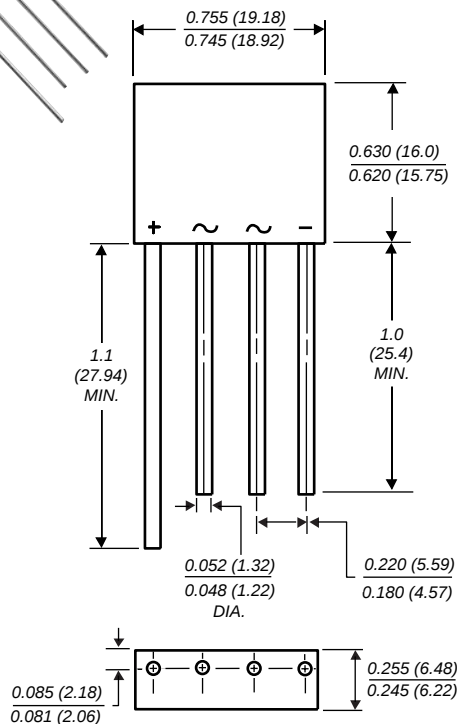


Single-Phase Bridge Rectifier

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.

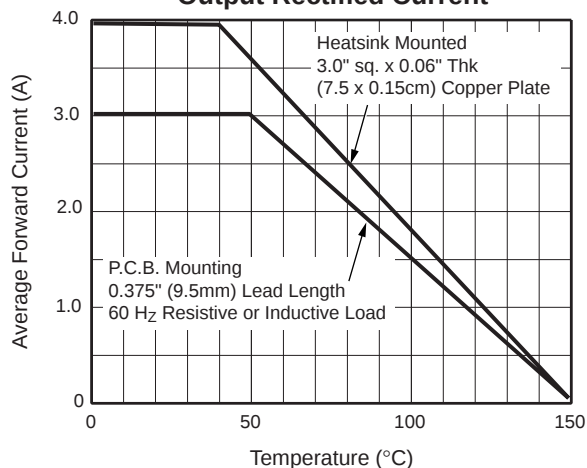
Maximum instantaneous forward drop per leg at 4.0 A	V_F	1.1	V
Maximum DC reverse current at rated $T_A=25^\circ\text{C}$ DC blocking voltage per leg $T_A=125^\circ\text{C}$	I_R	5.0 1.0	μA mA

Notes:

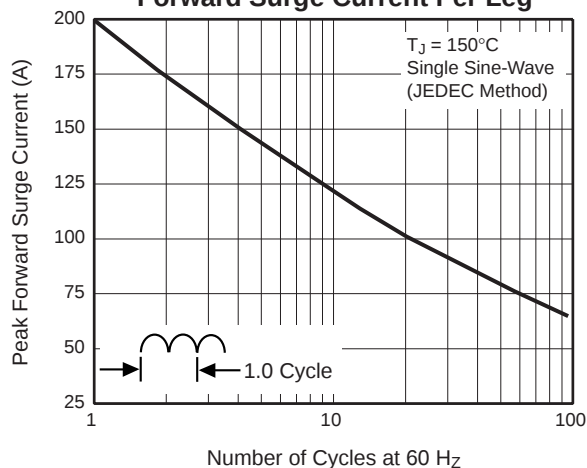
- (1) Thermal resistance from junction to ambient with units mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. plate
- (2) Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads

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

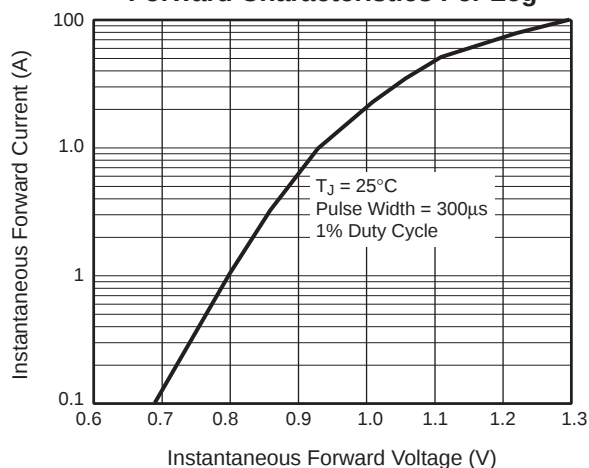
**Fig. 1 – Derating Curve
Output Rectified Current**



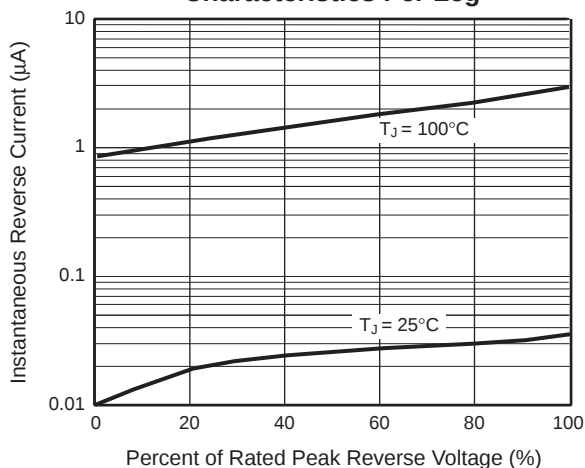
**Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current Per Leg**



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



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



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

