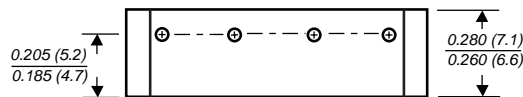
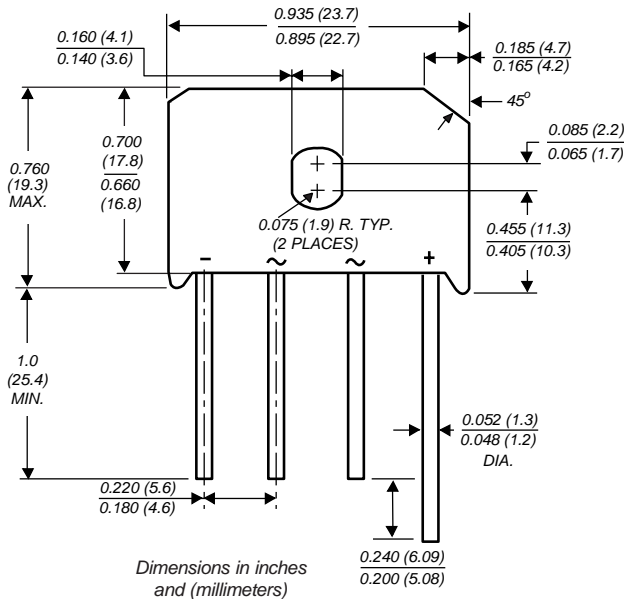




## Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V  
Forward Current 4.0 A

Case Style KBU



### 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
- Surge overload rating of 200A peak
- Typical  $I_R$  less than  $0.1\mu A$
- High temperature soldering guaranteed: 250°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 (NOTE 3)

**Weight:** 0.3 oz., 8.0 g

**Packaging codes/options:**  
1/250 EA. per Bulk Tray Stack

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

	Symbols	KBU 4A	KBU 4B	KBU 4D	KBU 4G	KBU 4J	KBU 4K	KBU 4M	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 output current at $T_C=100^\circ C^{(1)}$ $T_A=30^\circ C^{(2)}$	$I_{F(AV)}$	4.0						4.0		A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200								A
Typical thermal resistance per leg <sup>(2)</sup> <sub>(1)</sub>	$R_{\theta JA}$ $R_{\theta JL}$	19 4.0								°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150								°C

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

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

**Notes:**

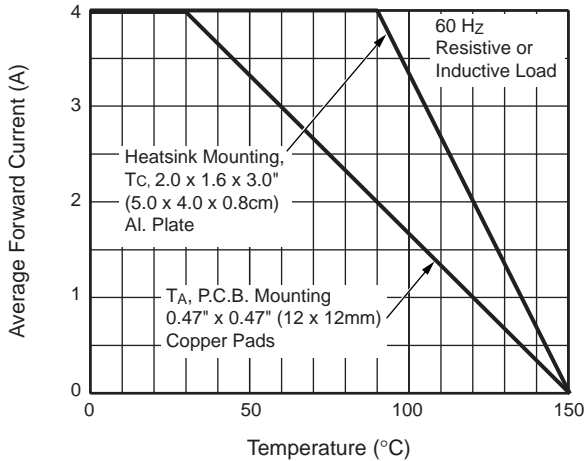
(1) Units mounted on a 2.0 x 1.6 x 0.3" thick (5 x 4 x 0.8cm.) Al. Plate

(2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length

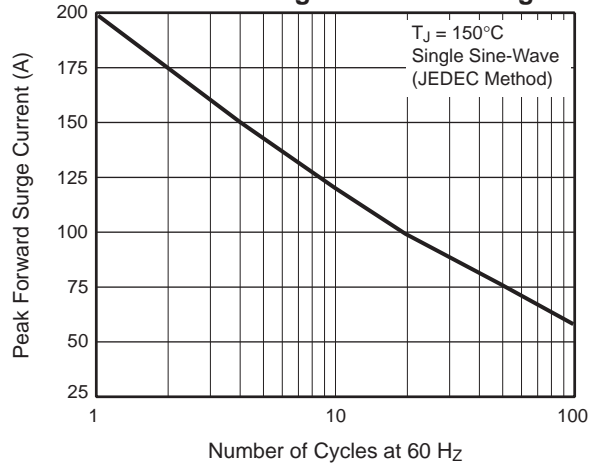
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

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

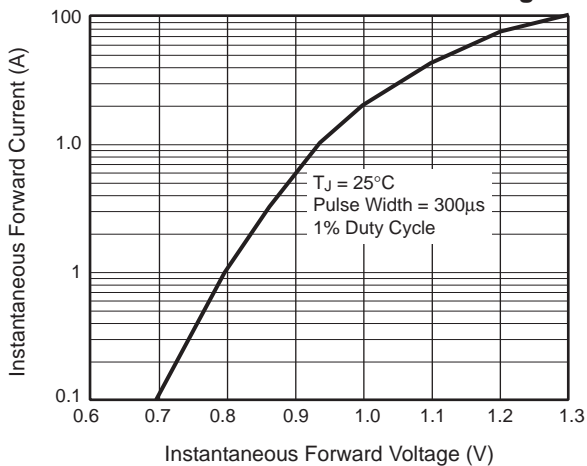
**Fig. 1 – Derating Curve  
Output Rectified Current**



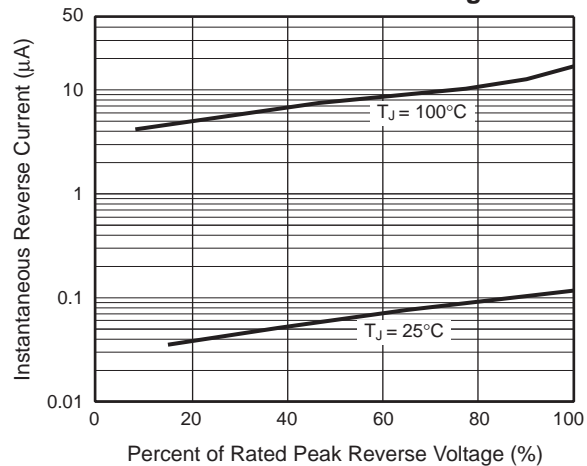
**Fig. 2 – Maximum Non-Repetitive Peak  
Forward Surge Current Per Leg**



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



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



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

