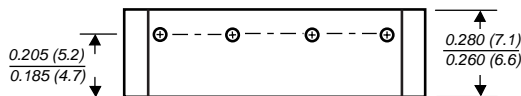
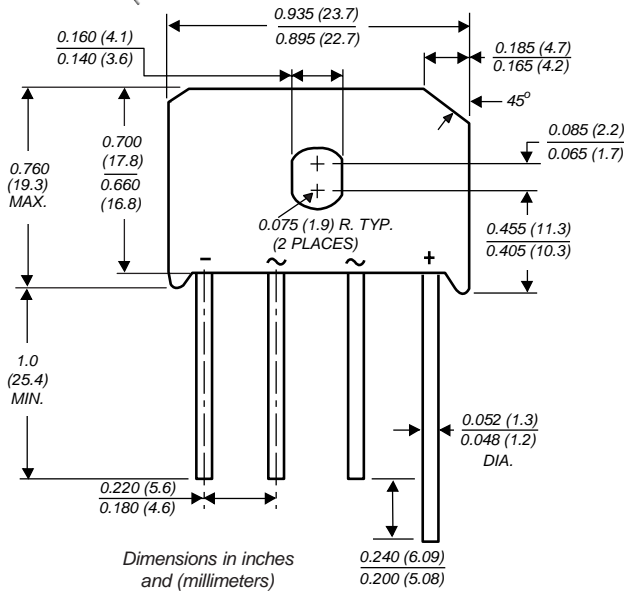




## Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V  
Forward Current 8.0 A

Case Style KBU



### Features

- Plastic material used carries 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 temperature soldering guaranteed: 250°C/10 seconds, 0.375 (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** Molded plastic body

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

**Mounting Position:** Any (Note 1)

**Mounting Torque:** 5 in. -lb. max.

**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 8A	KBU 8B	KBU 8D	KBU 8G	KBU 8J	KBU 8K	KBU 8M	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 $T_C=100^\circ\text{C}$ <sup>(1)</sup> <sup>(3)</sup> $T_A=45^\circ\text{C}$ <sup>(2)</sup>	$I_{F(AV)}$	8.0 6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	$I_{FSM}$	300							A
Typical thermal resistance per leg <sup>(2)</sup> <sup>(3)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	18 3.0							°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.

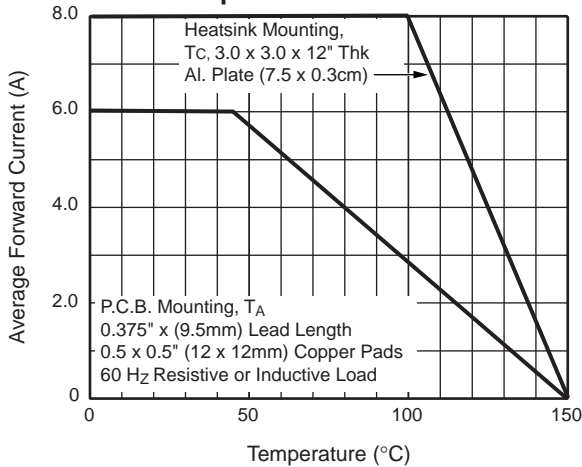
Maximum instantaneous forward drop per leg at 8.0 A	$V_F$	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	10 1.0							$\mu\text{A}$ mA

**Notes:**

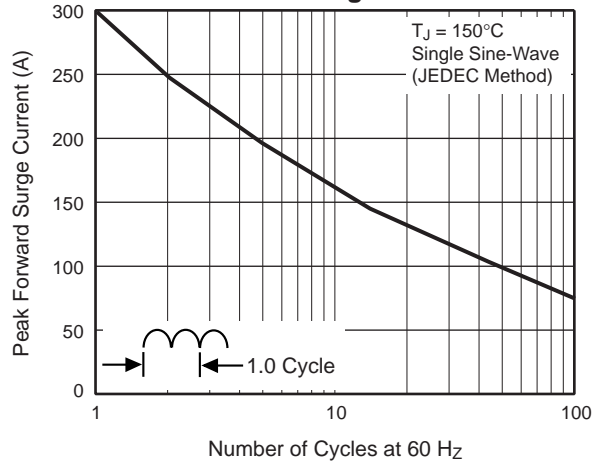
- (1) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
- (2) Units mounted in free air, no heatsink, P.C.B. at 0.375" (9.5mm) lead length with 0.5 x 0.5" (12 x 12mm) copper pads
- (3) Units mounted on a 3.0 x 3.0" x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. Plate heatsink

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

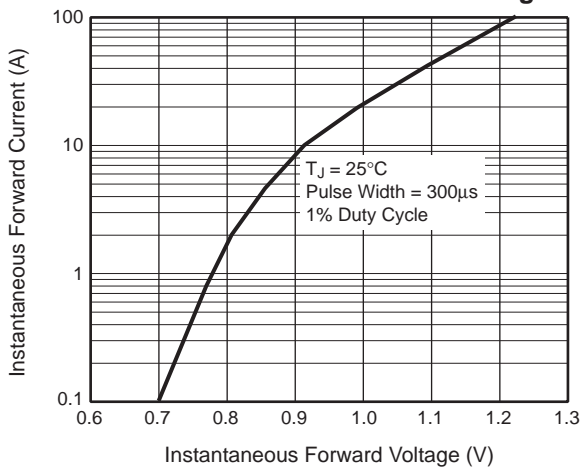
**Fig. 1 – Derating Curve Output Rectified Current**



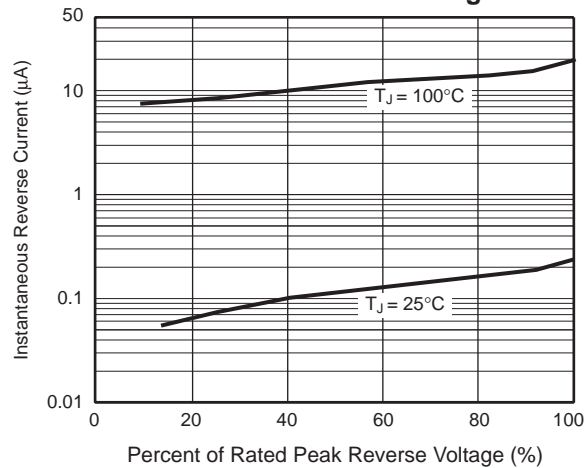
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



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



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



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

