

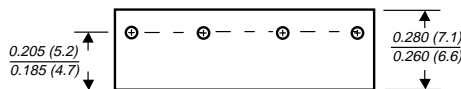
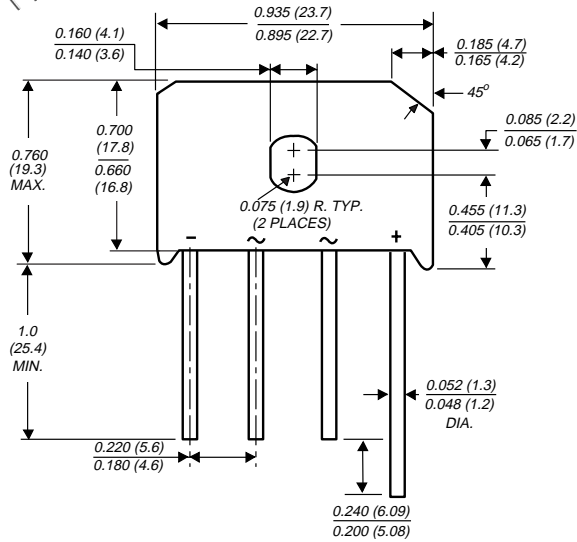
## Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V

Forward Current 6.0 A



Case Style KBU



Dimensions in inches and (millimeters)

### 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 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)

**Weight:** 0.3 ounce, 8.0 grams

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

	SYMBOLS	KBU 6A	KBU 6B	KBU 6D	KBU 6G	KBU 6J	KBU 6K	KBU 6M	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at $T_C=100^\circ\text{C}$ (NOTE 1,2) and $T_A=40^\circ\text{C}$ (NOTE 3)	IF(AV)	6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	IFSM	250							A
Typical thermal resistance per leg (NOTE 2)	R $\theta$ JA R $\theta$ JC	8.6 3.1							°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.

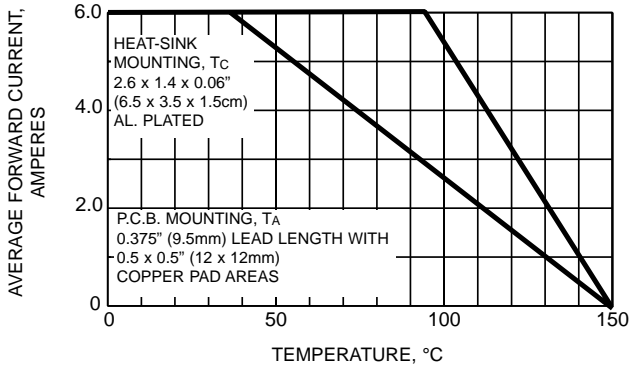
	SYMBOLS	KBU 6A	KBU 6B	KBU 6D	KBU 6G	KBU 6J	KBU 6K	KBU 6M	UNITS
Maximum instantaneous forward drop per leg at 6.0 A	V $_F$	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg	I $_R$	5.0 1.0							$\mu$ A mA

**Notes:**

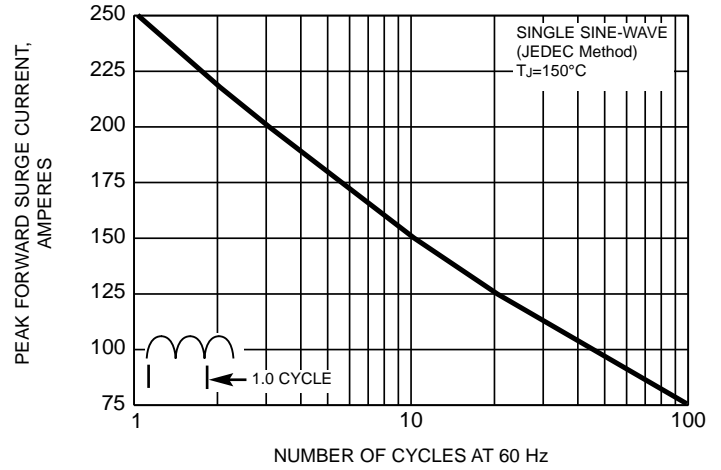
- (1) Recommended mounted position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
- (2) Thermal resistance from junction to ambient with units in free air, P.C.B. mounted on 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
- (3) Thermal resistance from junction to case with units mounted on a 2.6 x 1.4 x 0.06" thick (6.5 x 3.5 x 1.5cm) Al. Plate

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

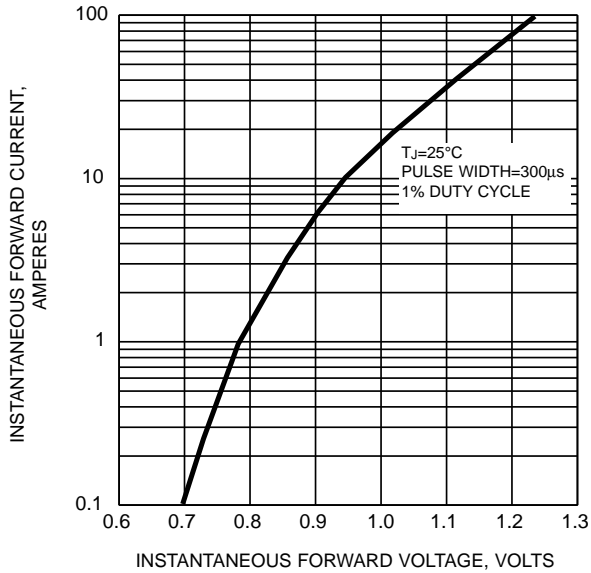
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



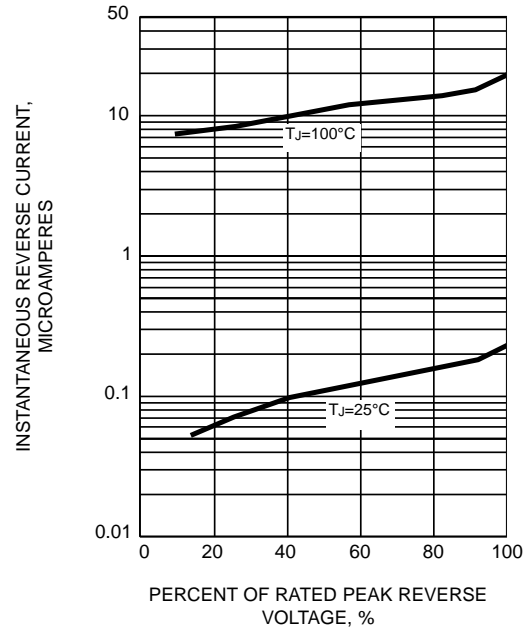
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**

