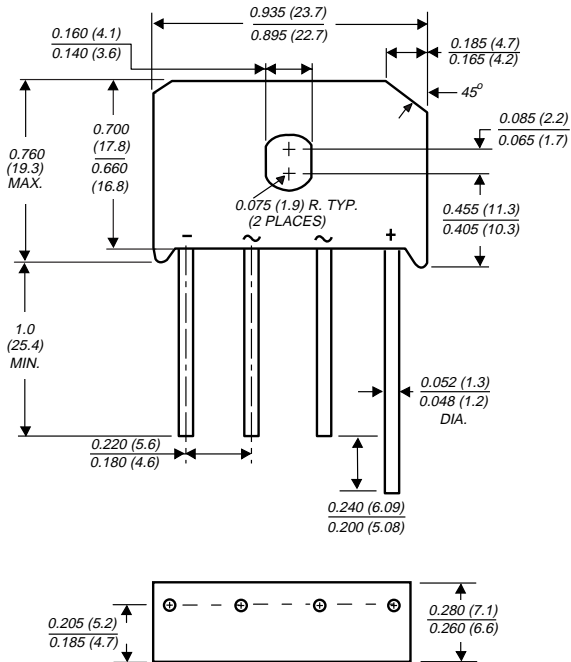


# KBU4A THRU KBU4M

## SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

### Case Style KBU



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL listed under Recognized under Component Index, file number E54214
- ◆ High case dielectric strength of 1500 VRMS
- ◆ Ideal for printed circuit boards
- ◆ Surge overload rating of 200 Amperes peak
- ◆ Typical  $I_R$  less than  $0.1\mu A$
- ◆ High temperature soldering guaranteed:  $250^\circ C/10$  seconds,  $0.375$ " (9.5mm) lead length, 5lbs (2.3kg) tension



### MECHANICAL DATA

**Case:** Molded plastic body

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

**Mounting Position:** Any (NOTE 3)

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

**Weight:** 0.3 ounce, 8.0 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ C$  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	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at $T_C=100^\circ C$ (NOTE 1) $T_A=30^\circ C$ (NOTE 2)	$I_{(AV)}$	4.0						Amps	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200.0						Amps	
Maximum instantaneous forward voltage drop per leg at 4.0A	$V_F$	1.0						Volts	
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	
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	$R_{\theta JA}$ $R_{\theta JL}$	19.0 4.0						$^\circ C/W$	
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150						$^\circ C$	

#### NOTES:

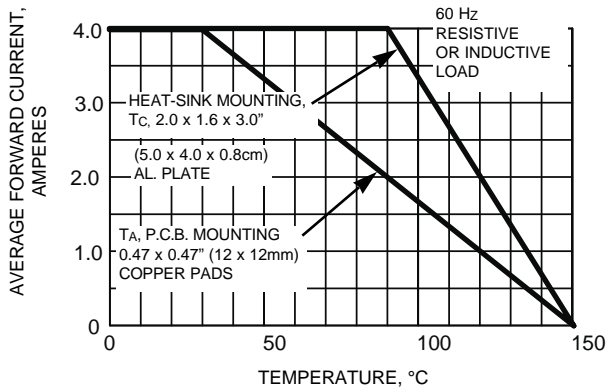
(1) Units mounted on a  $2.0 \times 1.6 \times 0.3$ " thick (5 x 4 x 0.8cm.) Al. Plate

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

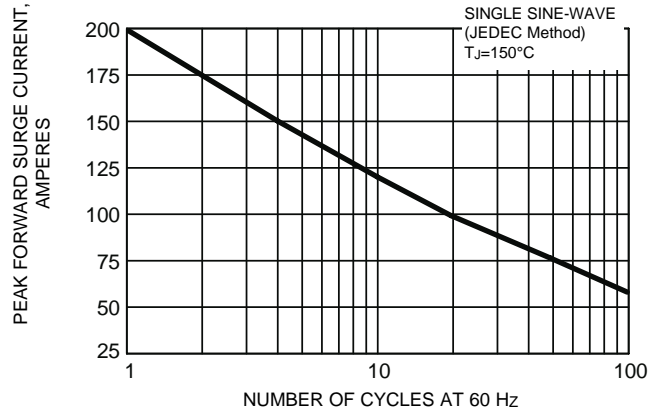
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

# RATINGS AND CHARACTERISTICS CURVES KBU4A THRU KBU4M

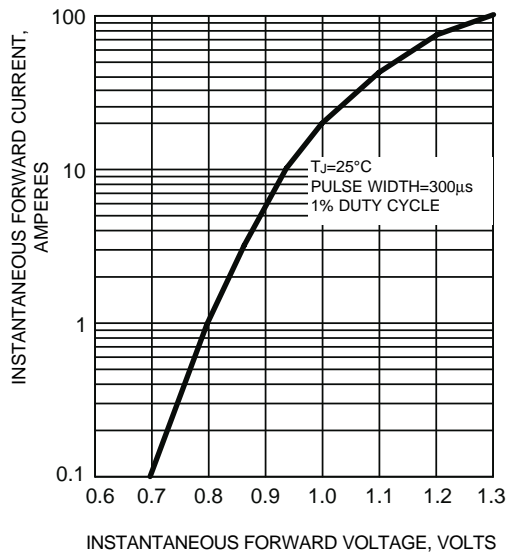
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



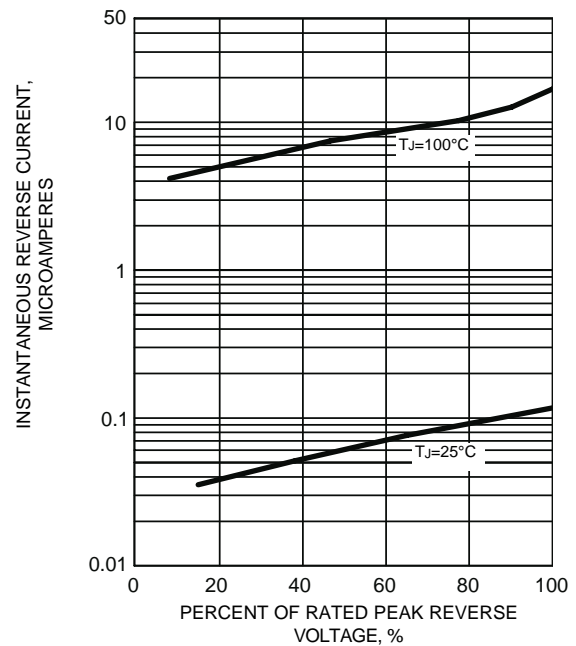
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



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



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



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

