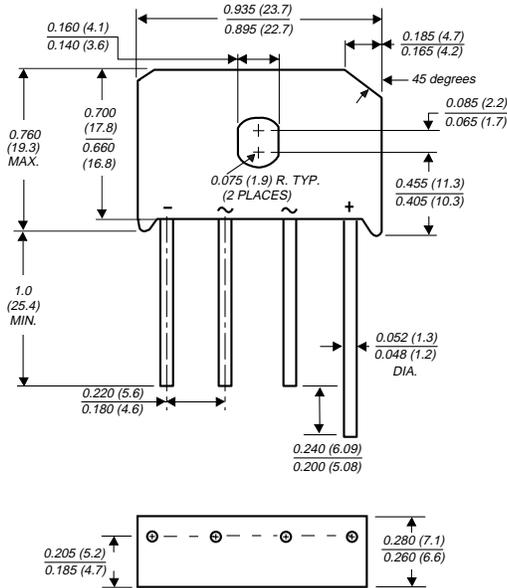


# KBU6A THRU KBU6M

## SINGLE-PHASE BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes

### 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 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, 5lbs. (2.3 kg) 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 ounce, 8.0 grams

### MAXIMUM RATINGS AND 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 repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at T <sub>C</sub> =100°C (NOTE 1, 2) T <sub>A</sub> =40°C (NOTE 3)	I <sub>(AV)</sub>	6.0							Amps
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T <sub>J</sub> =150°C	I <sub>FSM</sub>	250.0							Amps
Maximum instantaneous forward voltage drop per leg at 6.0A	V <sub>F</sub>	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage per leg T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	5.0							μA
		1.0							mA
Typical thermal resistance per leg (NOTE 2)	R <sub>θJA</sub> R <sub>θJC</sub>	8.6							°C/W
		3.1							
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150							°C

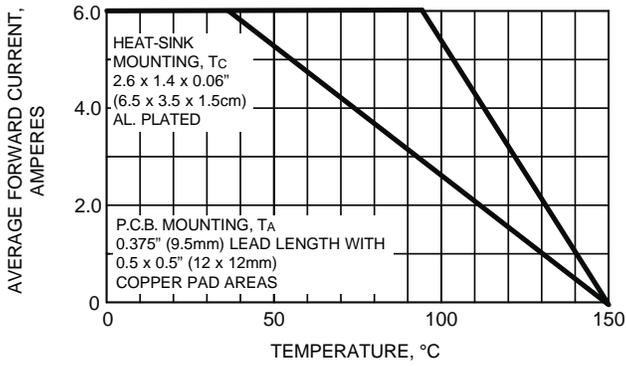
#### NOTES:

- (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

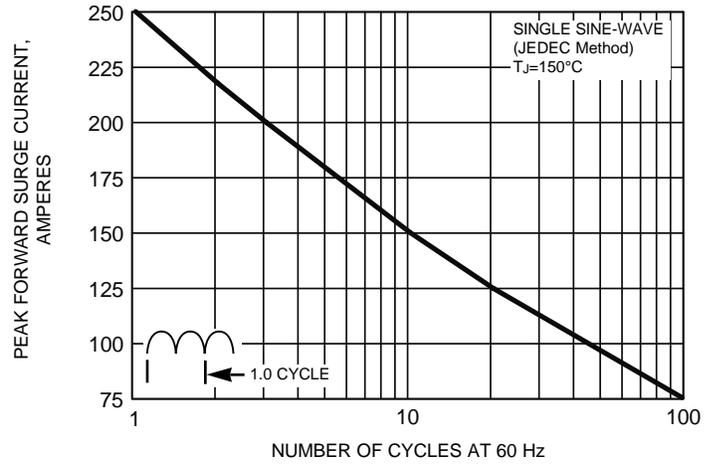
 GENERAL  
SEMICONDUCTOR

# RATINGS AND CHARACTERISTICS CURVES KBU6A THRU KBU6M

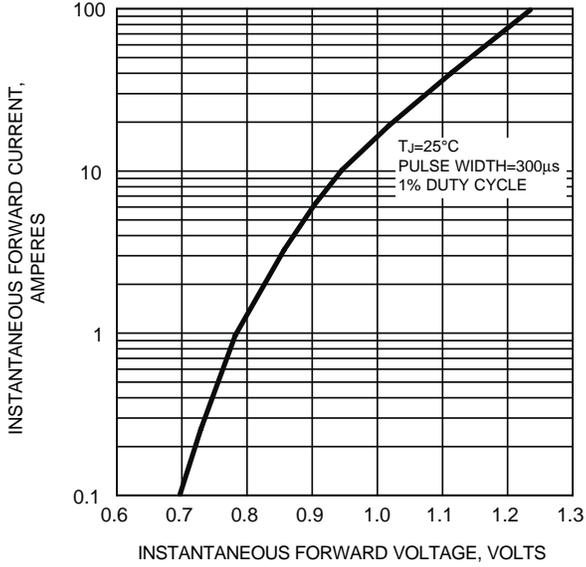
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



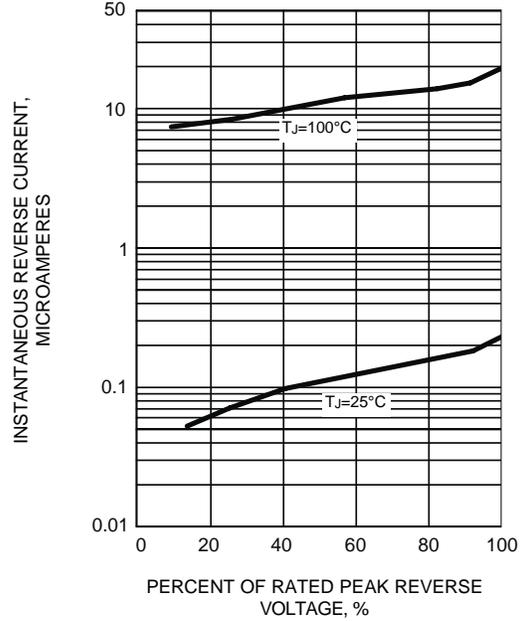
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



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



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



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

