

# Bridge Rectifier

## **KBU4K**

800V / 4A

# DATASHEET

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OEM – General Semiconductor

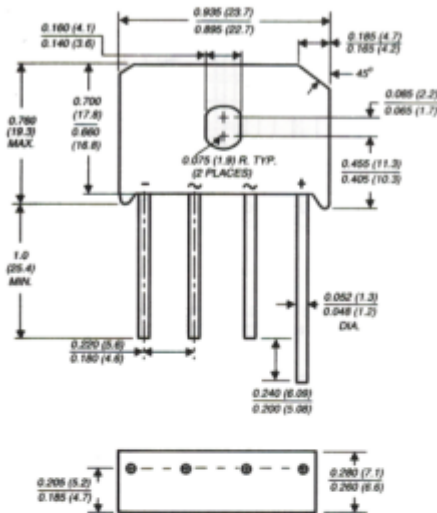
Source: General Semiconductor Databook 1998

# 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 IR less than 0.1μA
- ◆ 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 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°C ambient temperature unless otherwise specified.

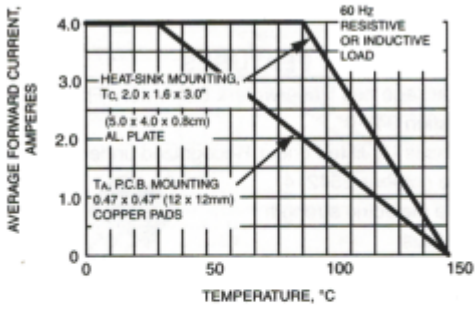
	SYMBOLS	KBU 4A	KBU 4B	KBU 4D	KBU 4G	KBU 4J	KBU 4K	KBU 4M	UNITS	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts	
Maximum average forward rectified output current at TC=100°C (NOTE 1) TA=30°C (NOTE 2)	IF(AV)	4.0				4.0				Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	200.0				200.0				Amps
Maximum instantaneous forward voltage drop per leg at 4.0A	VF	1.0				1.0				Volts
Maximum DC reverse current at rated DC blocking voltage per leg TA=25°C TA=125°C	IR	5.0				1.0				μA mA
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	REJA REJL	19.0				4.0				°C/W
Operating junction and storage temperature range	TJ, TSTG	-50 to +150				-50 to +150				°C

**NOTES:**

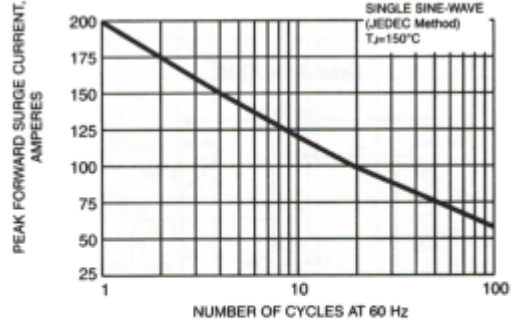
- (1) Units mounted on a 2.0 x 1.6 x 0.3" thick (5 x 4 x 0.8cm.) Al. Plate
- (2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length
- (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

**RATINGS AND CHARACTERISTICS CURVES KBU4A THRU KBU4M**

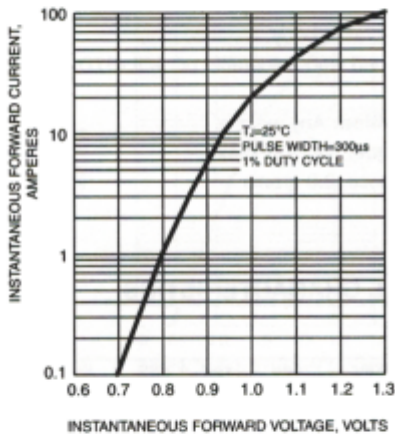
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



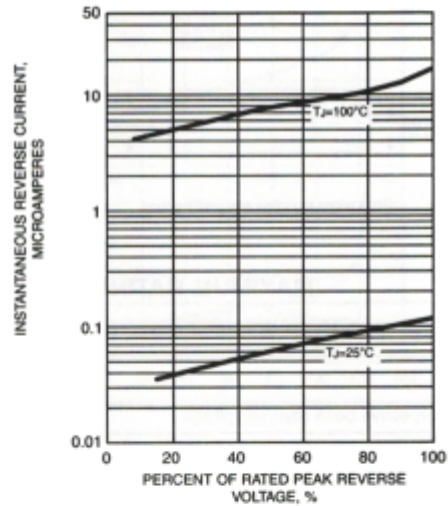
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



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



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



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

