

Bridge Rectifier

KBU4B

100V / 4A

DATASHEET

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OEM – General Semiconductor

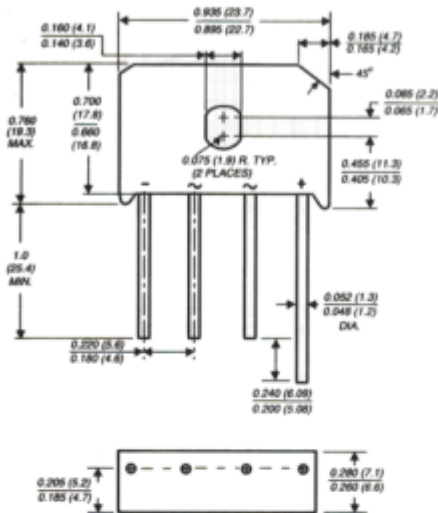
Source: General Semiconductor Databook 1998

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 I_R less than $0.1\mu A$
- ◆ 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	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			μA
						1.0			mA
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	$R_{\theta JA}$ $R_{\theta JL}$					19.0			$^\circ C/W$
						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 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

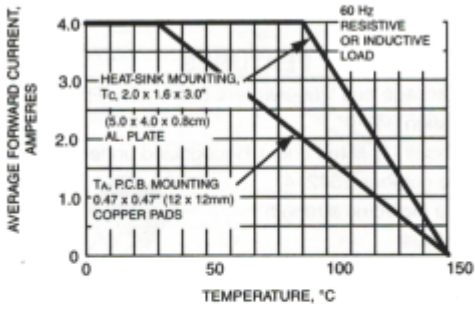


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

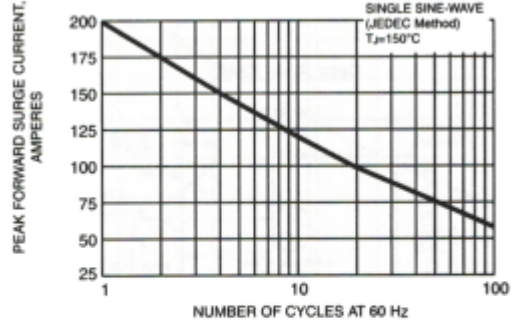


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

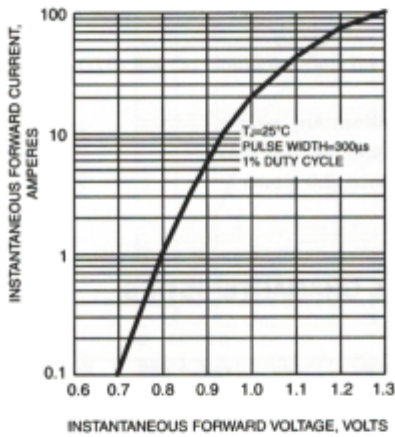


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

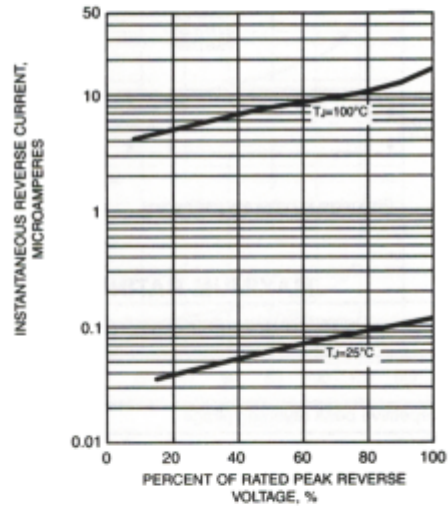


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

