Bridge Rectifier

KBU6B

100V / 6A

DATASHEET

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OEM – General Semiconductor

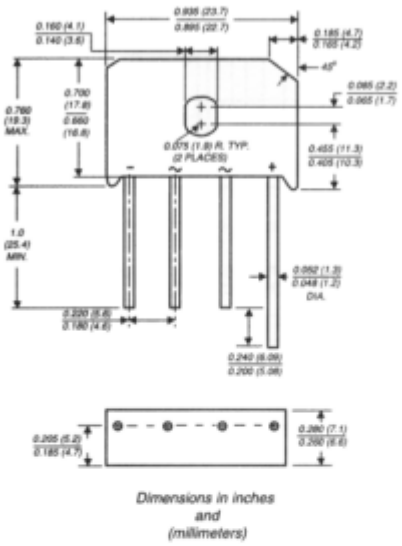
Source: General Semiconductor Databook 1998

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 V_{RMS}
- 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_{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 T_C=100°C (NOTE 1,2) output current at T_A=40°C (NOTE 3)	$I_{(AV)}$	6.0 6.0							Amps
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T_J=150°C	I_{FSM}	250.0							Amps
Maximum instantaneous forward voltage drop per leg at 6.0A	V_F	1.0							Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage per leg T_A=125°C	I_R	5.0 1.0							µA mA
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

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.15cm) Al. Plate

RATINGS AND CHARACTERISTICS CURVES KBU6A THRU KBU6M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

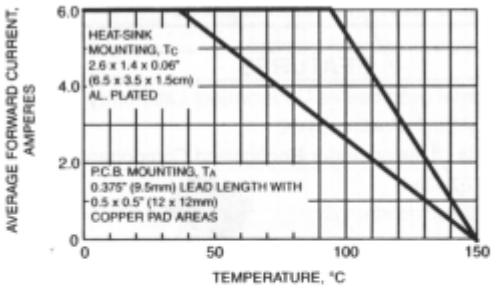


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

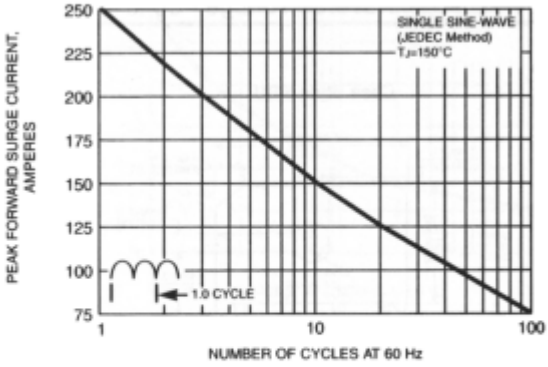


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

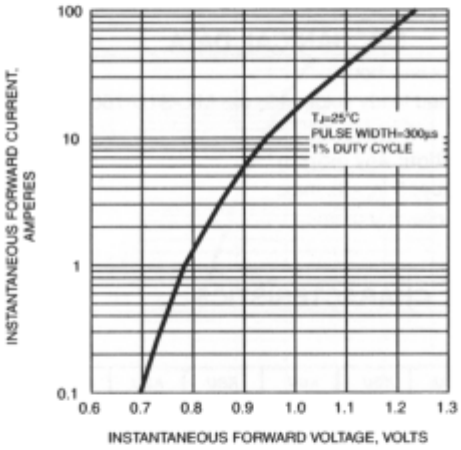


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

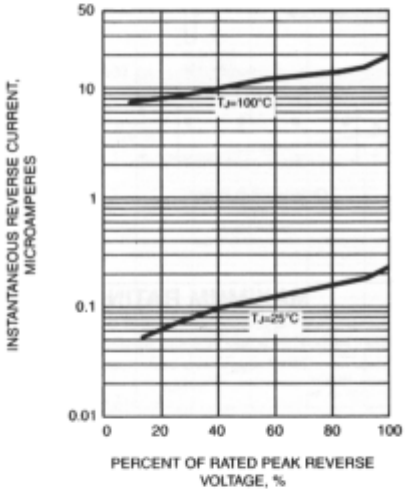


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG