

KBU6A ~ KBU6M

Silicon Bridge Rectifiers

PRV : 50 - 1000 Volts

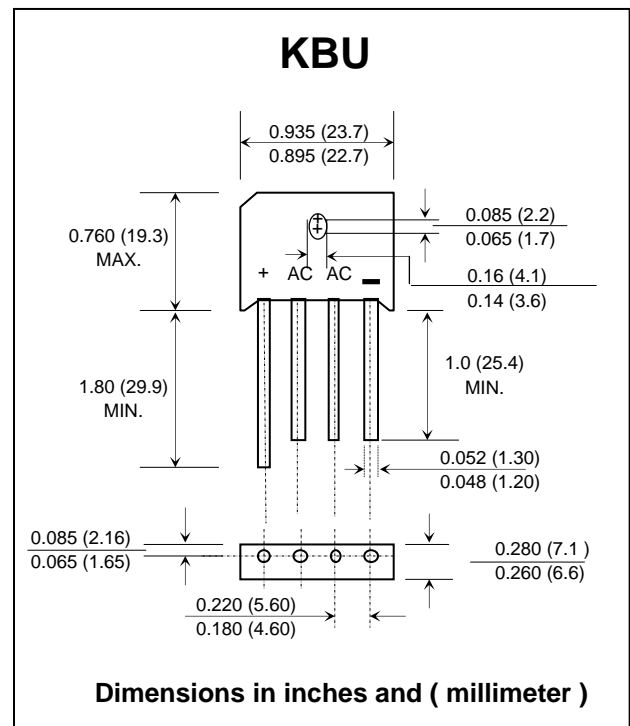
I_o : 6.0 Amperes

FEATURES :

- * Ideal for printed circuit boards
- * High surge current capability
- * High case dielectric strength of 1500 V_{RMS}
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Molded plastic
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 8.0 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	KBU 6A	KBU 6B	KBU 6D	KBU 6G	KBU 6J	KBU 6K	KBU 6M	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current at T _c = 100 °C ⁽¹⁾⁽²⁾ Ta = 40 °C ⁽³⁾	I _{F(AV)}	6.0							A
Peak Forward Surge Current, Single sine-wave Superimposed on rated load	I _{FSM}	250							A
Maximum Instantaneous Forward Voltage per leg at I _F = 6 A	V _F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	I _R	5.0 (Ta = 25°C)							µA
	I _{R(H)}	1.0 (Ta = 125°C)							mA
Thermal Resistance, Junction to Ambient, per leg ⁽²⁾	R _{θJA}	8.6							°C/W
Thermal Resistance, Junction to Case, per leg ⁽²⁾	R _{θJC}	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 12 mm) copper pads, 0.375" (9.5 mm) 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 15 cm) Al.Plates

RATING AND CHARACTERISTIC CURVES (KBU6A - KBU6M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

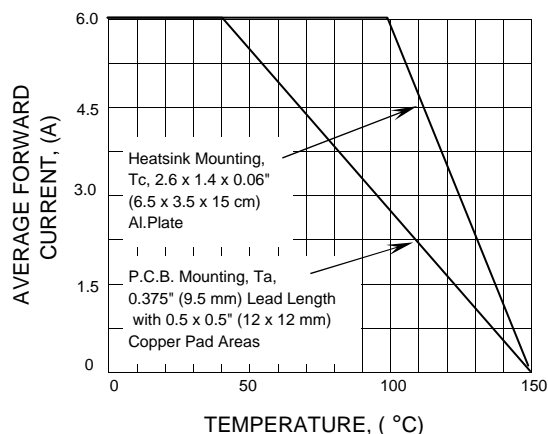


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

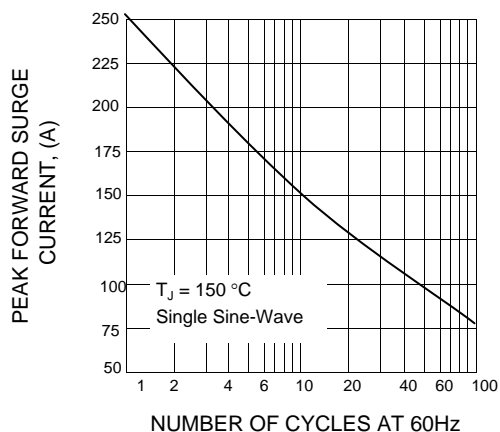


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

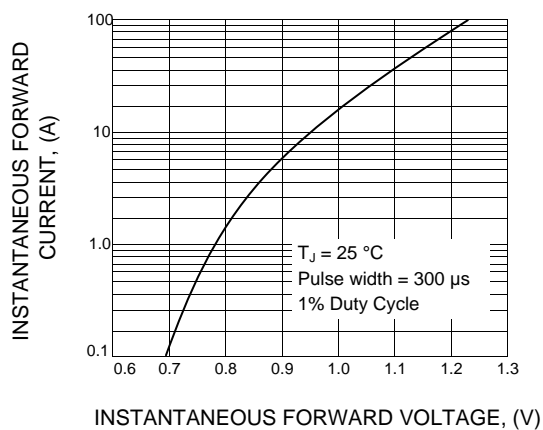


FIG.4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

