

KBU6A ~ KBU6M

Silicon Bridge Rectifiers

PRV : 50 - 1000 Volts

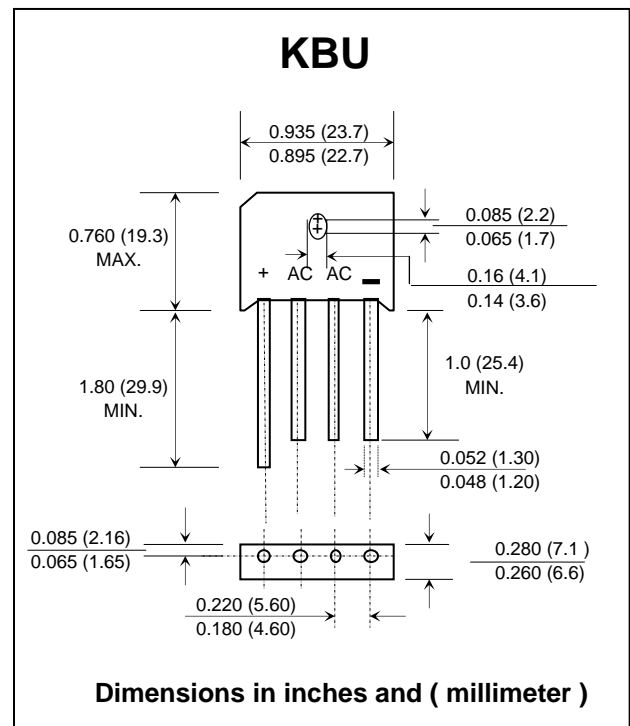
Io : 6.0 Amperes

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 $T_c = 100\text{ }^\circ\text{C}$ ⁽¹⁾⁽²⁾ $T_a = 40\text{ }^\circ\text{C}$ ⁽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 $I_F = 6\text{ A}$	V_F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	I_R	5.0 ($T_a = 25\text{ }^\circ\text{C}$)							μA
	$I_{R(H)}$	1.0 ($T_a = 125\text{ }^\circ\text{C}$)							mA
Thermal Resistance, Junction to Ambient, per leg ⁽²⁾	$R_{\theta JA}$	8.6							$^\circ\text{C/W}$
Thermal Resistance, Junction to Case, per leg ⁽²⁾	$R_{\theta JC}$	3.1							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 50 to + 150							$^\circ\text{C}$

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

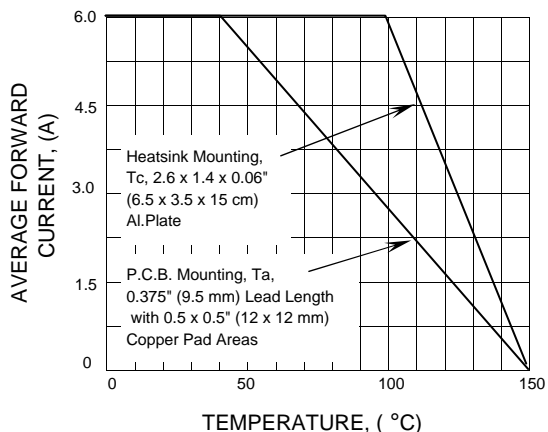


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

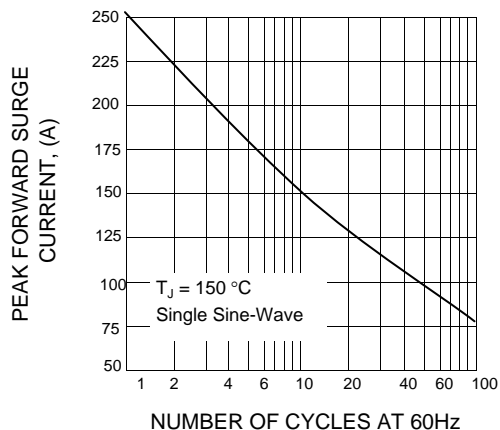


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

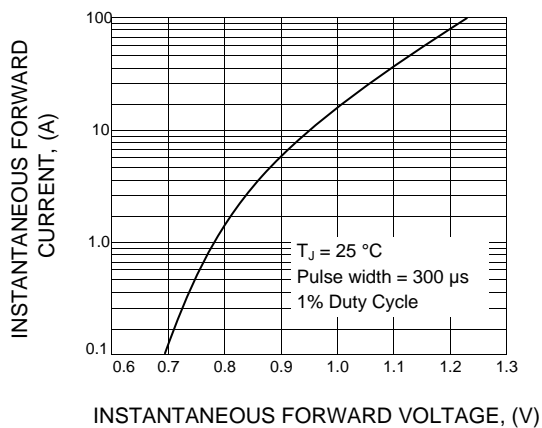


FIG.4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

