



KBU600 THRU KBU610

SINGLE PHASE 6.0 AMPS SILICON BRIDGE RECTIFIERS



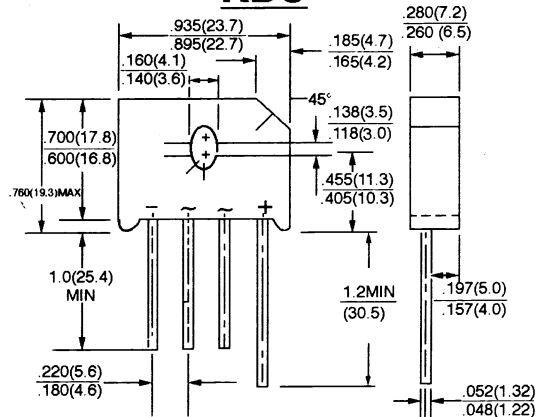
VOLTAGE RANGE

50 to 1000 Volts
CURRENT
6.0 Amperes

FEATURES

- * High Surge Current Capability
- * Ideal for printed circuit board
- * Reliable low cost construction technique results in inexpensive product

KBU



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	KBU 600	KBU 601	KBU 602	KBU 604	KBU 606	KBU 608	KBU 610	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 100^\circ\text{C}^{(1)(3)}$ $T_A = 40^\circ\text{C}^{(2)}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							A
Maximum Forward Voltage Drop per element @ 3.0A	V_F	1.10							V
Maximum Reverse Current at Rated @ $T_A = 25^\circ\text{C}$ D.C. Blocking Voltage per element @ $T_A = 100^\circ\text{C}$	I_R	10 500							μA μA
Typical thermal resistance per leg (2) (3)	$R_{\theta JA}$ $R_{\theta JC}$	18.6 3.1							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

NOTE:

(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 0.15cm) Plate.

RATINGS AND CHARACTERISTIC CURVES (KBU600 THRU KBU610)

FIG. 1 - MAXIMUM NON REPETITIVE FORWARD SURGE CURRENT - PER ELEMENT

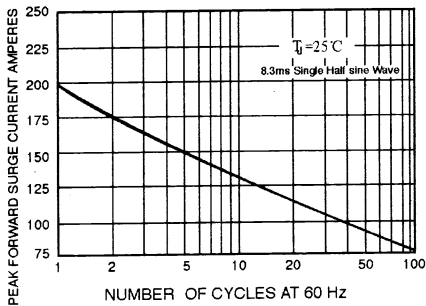


FIG. 2 - TYPICAL FORWARD OUTPUT CURRENT DERATING CURVE

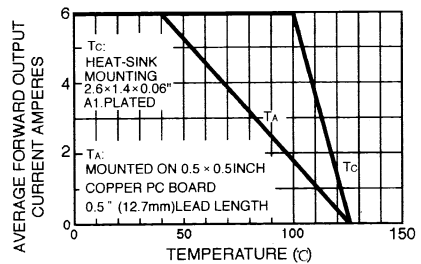


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD PER BRIDGE ELEMENT

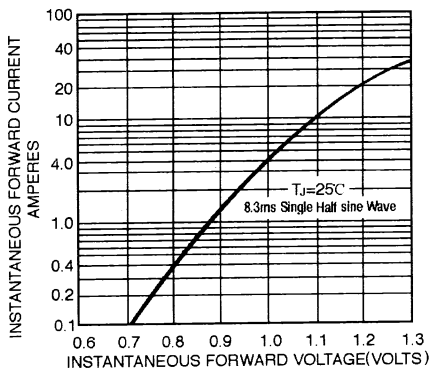


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS - PER ELEMENT

