SINGLE PHASE BRIDGE RECTIFIER

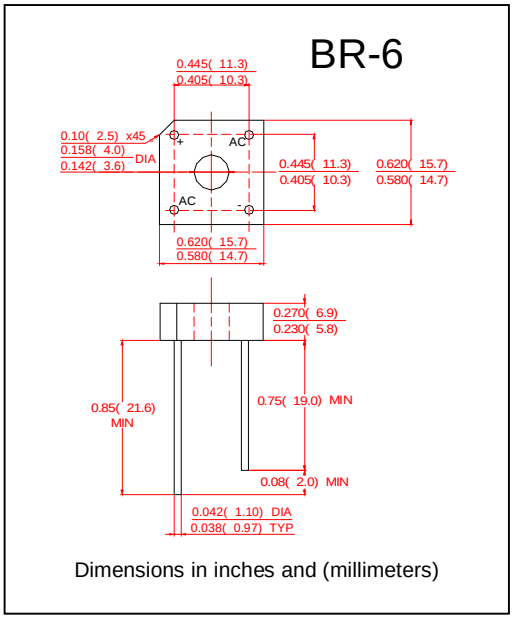
KBPC6005 THRU KBPC610
BR605 THRU BR610

VOLTAGE RANGE **50 to 1000 Volts**

CURRENT **6.0 Ampere**

FEATURES

- Low cost
- This series in UL recognized under component index, file number E127707
- High forward surge current capacity
- Ideal for printed circuit board
- High isolation voltage from case to leads
- High temperature soldering guaranteed: 260^{O}C / 10 seconds, at 5 lbs. (2.3kg) tension.



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Technology: Cell with vacuum soldered
- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 5 in-lbs torque max.
- Weight: 0.13 ounce, 3.66 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

		SYMBOLS	KBPC6005 BR605	KBPC601 BR61	KBPC602 BR62	KBPC604 BR64	KBPC606 BR66	KBPC608 BR68	KBPC610 BR610	UNIT
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 = 50℃ (Note 1)	$I_{(AV)}$	6.0							Amps
	T_A = 25℃ (Note 2)		3.0							
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	125							Amps
Rating for Fusing (t<8.3mS)		I^2t	64							A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element at 3.0 A		V_F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	T_A = 25℃	I_R	5.0							μA
	T_A = 100℃		1.0							mA
Isolation Voltage from case to lug		V_{ISO}	2500							Volts
Typical Thermal Resistance (Note 1)		$R_{\theta Jc}$	8.0							^{O}C/W
Operating Temperature Rang		T_J	-55 to +150							^{O}C
Storage Temperature Rang		T_{STG}	-55 to +150							^{O}C

Notes:

1. Unit mounted on 6.0" x 5.5" x 0.11" thick (15×14×0.3cm) AL plate
2. Unit mounted on P.C. Board 0.375" (9.5mm) lead length with 0.47"×0.47" (12×12mm) copper pads.

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RATINGS AND CHARACTERISTIC CURVES KBPC6005 THRU KBPC610

FIG.1–DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

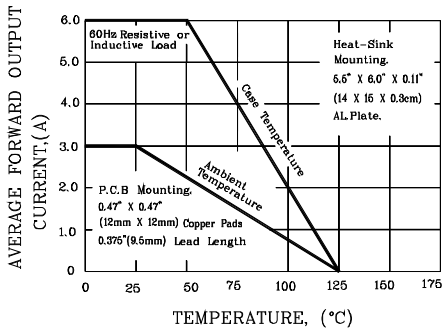

FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

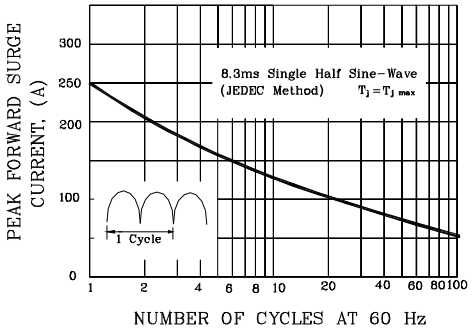

FIG.3–TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

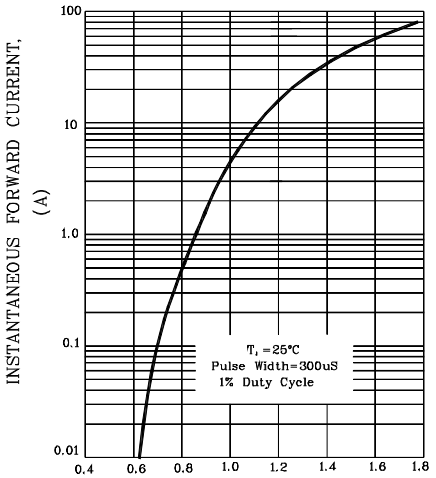

FIG.4–TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

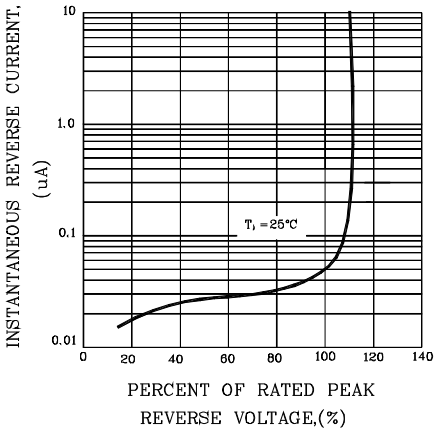

FIG.5–TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT