SINGLE-PHASE BRIDGE RECTIFIER

KPBC6005 THRU KPBC610	BR605 THRU BR610

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 6.0 Amperes

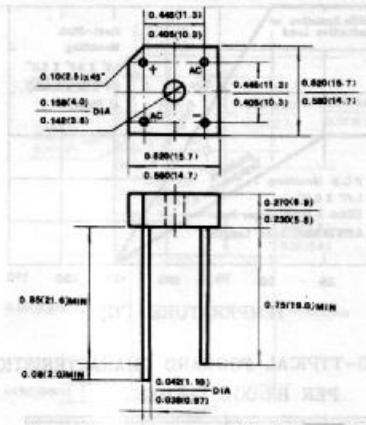
FEATURES

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

MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C
- Polarity: Polarity symbols molded on case
- Mounting: Thru hole for #6 screw; 5 in. -lbs. torque max.
- Weight: 0.13 ounce, 3.66 grams

BR-6



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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	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 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 3.0A		V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	T_A=25℃	I_R	10							μAmps
	T_A=100℃		1.0							mAmps
Isolation Voltage from case to leads.		V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1)		$R_{\theta JC}$	8.0							℃/W
Operating Temperature Range		T_J	-55 to +125							℃
Storage Temperature Range		T_{STG}	-55 to +150							℃

NOTES:
1. Unit mounted on 6.0″ ×5.5″ ×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.

RATINGS AND CHARACTERISTIC CURVES KPBC6005 BR605 THRU KPBC610 BR610

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

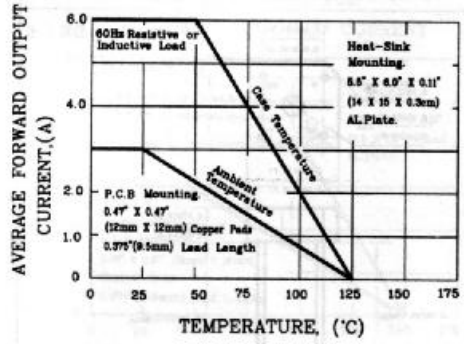


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

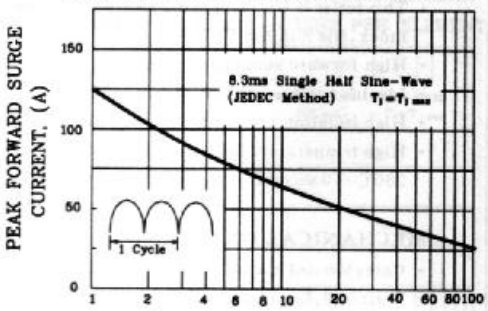


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

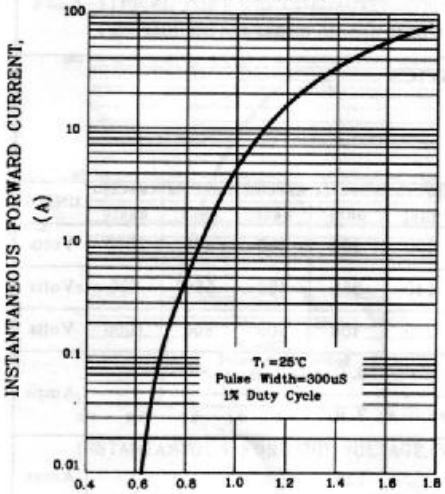


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

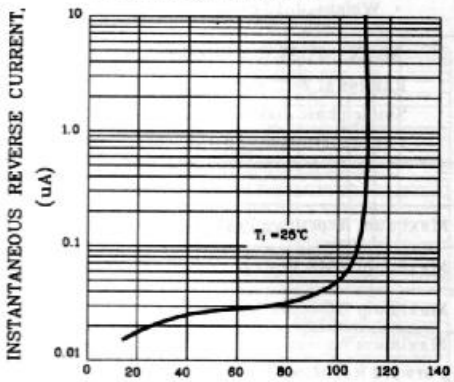


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT