



SINGLE-PHASE BRIDGE RECTIFIER

KPBC1005
THRU
KPBC110

BR305
THRU
BR310

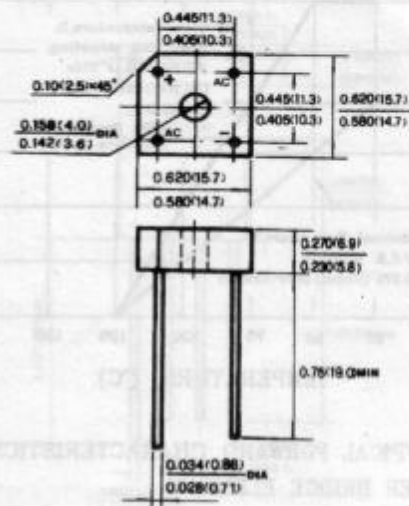
FEATURES

- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed; 260°C/10 second, 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; 0.093 ounce, 2.62 gram

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 3.0 Amperes



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load derate current by 20%.

		SYMBOLS	KPBC1005 BR305	KPBC101 BR31	KPBC102 BR32	KPBC104 BR34	KPBC106 BR36	KPBC108 BR38	KPBC110 BR310	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°C (Note 2)	I _(AV)	3.0							Amps
	T _A = 25°C (Note 3)		2.0							
Peak Forward Surge Current 8.3ms single half sine — wave superimposed on rated load (JEDEC Method)		I _{FSM}	60							Amps
Rating for Fusing (t < 8.3ms)		I ² t	15							A ² s
Maximum Instantaneous Forward Voltage Drop per bridge element at 1.5A		V _F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	T _A = 25°C	I _R	10							μAmps
	T _A = 100°C		0.5							mAmps
Typical Junction Capacitance per element (Note 1)		C _J	20							pF
Typical Thermal Resistance per element (Note 2)		R _{θJA}	12							°C/W
Operating Temperature Range		T _J	—55 to +125							°C
Storage Temperature Range		T _{STG}	—55 to +150							°C

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 4.0" × 4.0" × 0.11" thick (10.5 × 10.5 × 0.3cm) Al. plate.
3. Unit mounted on P. C. B at .375" (9.5mm) lead length with 0.5" × 0.5" (12 × 12mm) copper pads.

FIG.1-DERATING CURVE FOR
OUTPUT DERTAINING CURVE

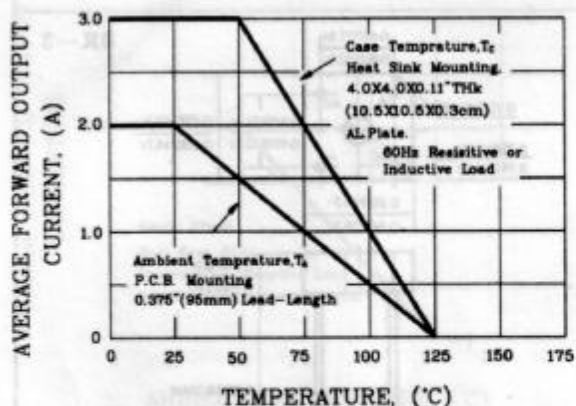


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

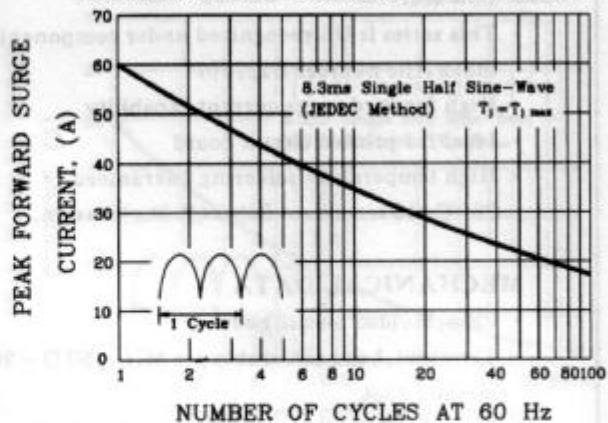


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

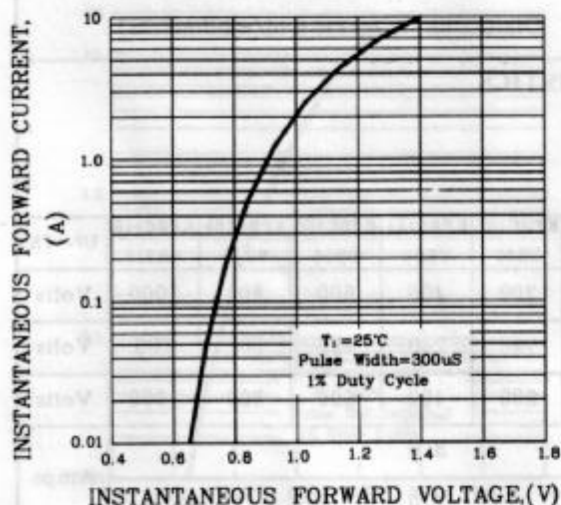


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

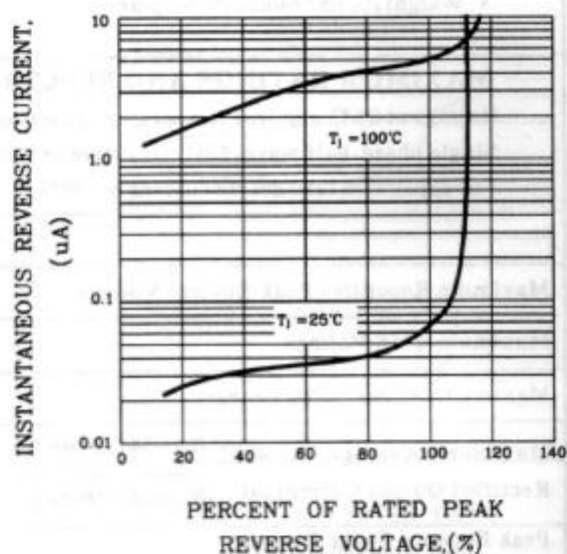


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

