



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER KBPC8005 THRU KBPC810 BR805 THRU BR810

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 8.0 Amperes

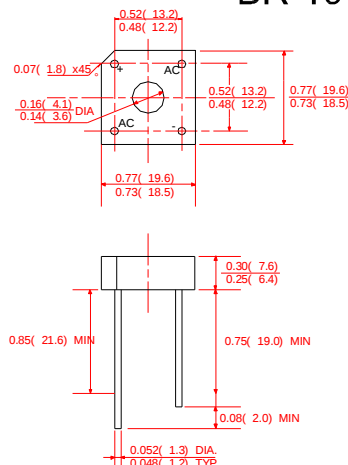
FEATURES

- 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°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, 5.0 in.-lbs torque max.
- Weight: 0.20ounce, 5.62 grams

BR-10



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	BR805 KBPC8005	BR81 KBPC801	BR82 KBPC802	BR84 KBPC804	BR86 KBPC806	BR88 KBPC808	BR810 KBPC810	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 (Note1)	I _(AV)	8.0							Amps
	T _C =100 °C (Note1)		6.0							
	T _A =50 °C (Note2)		6.0							
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 ² T	64							A ² S
Maximum Instantaneous Forward Voltage at 4.0A		V _F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25 °C	I _R	5.0							μAmps
	T _A =150 °C		1.0							mAmps
Isolation Voltage from case to leads		V _{ISO}	2500							V _{AC}
Typical Thermal Resistance (Note 1)		R _{θJC}	6.0							°C/W
Operating Temperature Range		T _J	-55 to +150							°C
Storage Temperature Range		T _{STG}	-55 to +150							°C

NOTES:

- Unit mounted on 8.7"×8.7"×0.24" thick (22×22×0.6 cm) Al. plate.
- Unit mounted on P.C.B at 0.375" (9.5mm) lead length with 0.47"×0.47" (12×12mm) copper pads.



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RATINGS AND CHARACTERISTIC CURVES BR805 THRU BR810

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

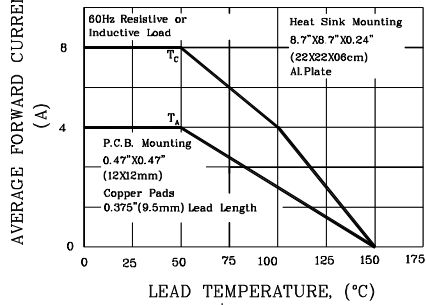


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

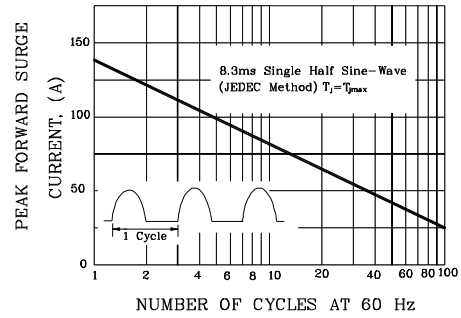


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

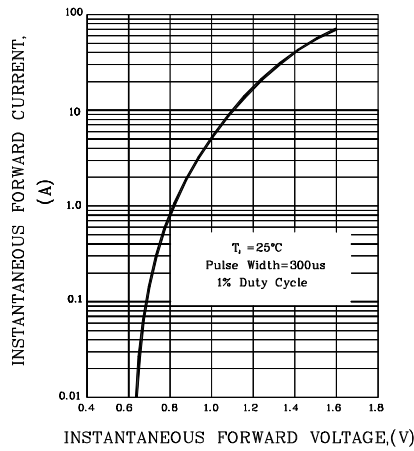


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

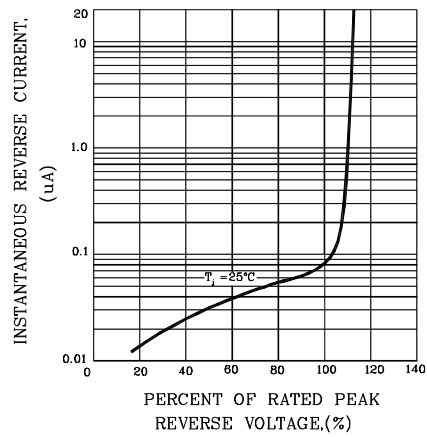


FIG.5-TYPICAL JUNCTION CAPACITANCE

