

KBPC8005 THRU KBPC810 AND BR805 THRU BR810

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

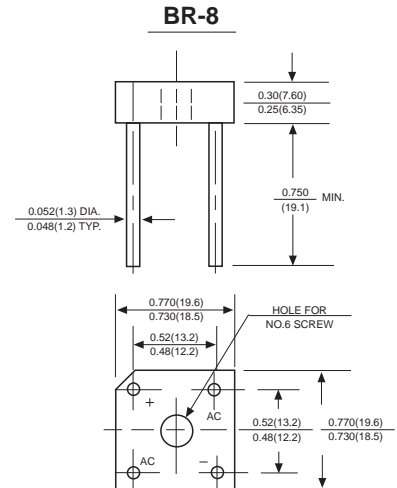
8.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds, at 5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #6 serew, 5in.-lbs. torque max.
- Weight: 0.200 ounce, 5.62 grams



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 current derate by 20%.

	SYMBOLS	KBPC 8005 BR805	KBPC 801 BR81	KBPC 802 BR82	KBPC 804 BR84	KBPC 806 BR86	KBPC 808 BR88	KBPC 810 BR810	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 output current at	$I_{(AV)}$	$T_C=50^\circ\text{C}$ (Note 1)		8.0					Amps
		$T_C=100^\circ\text{C}$ (Note 1)		6.0					
		$T_A=50^\circ\text{C}$ (Note 2)		6.0					
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125.0					Amps		
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	64					A ² s		
Maximum instantaneous forward voltage drop per bridge element at 4.0A	V_F	1.1					Volts		
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^\circ\text{C}$		10					μA
		$T_A=100^\circ\text{C}$		1.0					mA
Isolation voltage from case to leads	V_{ISO}	2500					V _{AC}		
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	6.0					°C/W		
Operating junction temperature range	T_J	-55 to +125					°C		
storage temperature range	T_{STG}	-55 to +150					°C		

NOTES:

1. Unit mounted on 8.7" x 8.7" x 0.24" thick (22x22x0.6cm) Al. plate.
2. Unit mounted on P.C. board with 0.47" x 0.47" (12x12mm) copper pads, 0.375" (9.5mm) lead length.



SILICON BRIDGE RECTIFIERS

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AND BR805 THRU BR810

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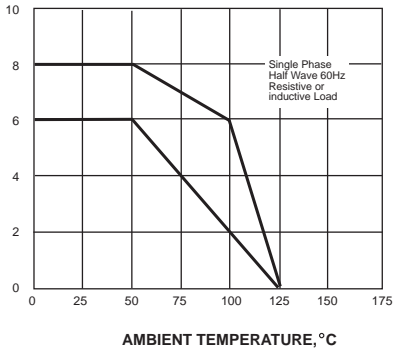
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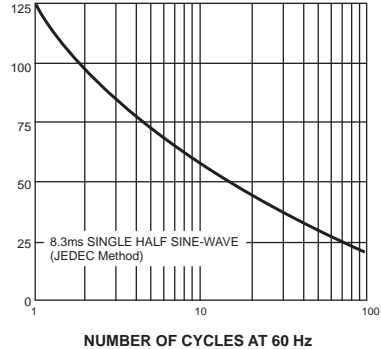
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



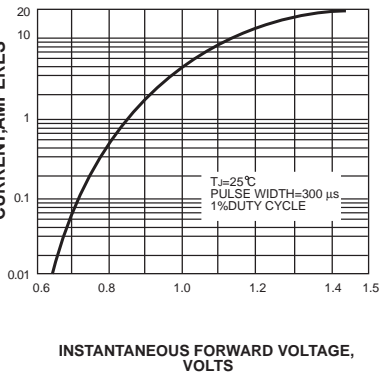
PEAK FORWARD SURGE CURRENT,
AMPERES

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



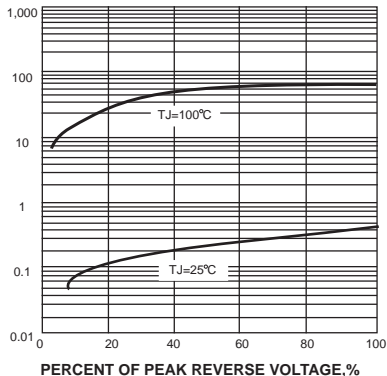
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



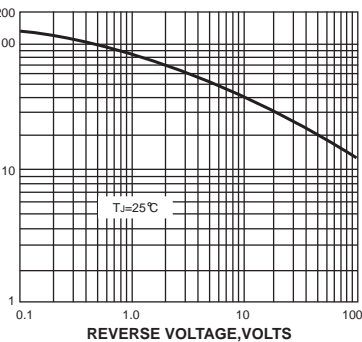
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
 $^\circ\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

