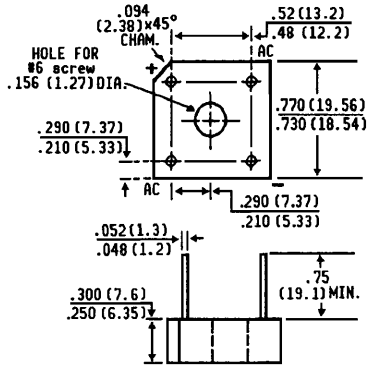


# KBPC8005 THRU KBPC810

**GLASS PASSIVATED SINGLE - PHASE SILICON BRIDGE RECTIFIER**  
**VOLTAGE - 50 to 1000 Volts    CURRENT - 8.0 Amperes**

## FEATURES

- ◆ This series is UL recognized under component index, file number E54214
- ◆ High temperature metallurgically bonded
- ◆ Glass passivated cavity-free rectifier junctions
- ◆ Plastic material used carries Underwriters Laboratory Flammability Classification 94V-O
- ◆ Typical  $I_R$  less than  $0.1 \mu A$
- ◆ High temperature soldering guaranteed:  $265^\circ C / 10$  seconds /  $.375"$ , (9.5mm) lead length / 5lbs., (2.3 kg) tension



Polarity shown on side of case:  
positive lead by beveled corner

Dimensions in inches  
and  
(millimeters)

## MECHANICAL DATA

**Case:** Void-free plastic package

**Terminals:** Leads, solderable per MIL-STD-202, Method 208

**Mounting :** Thru hole for #6 screw

**Mounting Position:** Any

**Weight:** 0.24 ounce, 6.9 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ C$  ambient temperature unless otherwise specified.  
 Resistive or inductive load, 60 Hz.  
 For capacitive load, derate current by 20%.

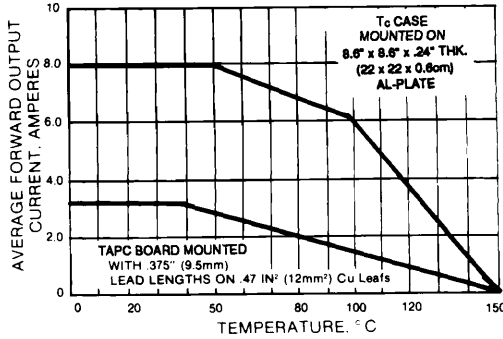
	SYMBOLS	KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at $T_C = 50^\circ C$ (Note 1) and $T_A = 40^\circ C$ (Note 2)	$I_{(AV)}$				8.0				Amps
Peak Forward Surge Current Single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$				125				Amps
Maximum Instantaneous Forward Voltage drop per element at 3.0A	$V_F$				1.2				Volts
Maximum DC Reverse Leakage at Rated DC Blocking Voltage $T_A = 25^\circ C$ and $T_C = 125^\circ C$	$I_R$				10.0				$\mu A$
Typical Junction Capacitance per element (Note 3)	$C_J$				30.0				pf
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$				6.0				$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$				-50 to +150				$^\circ C$

### NOTES:

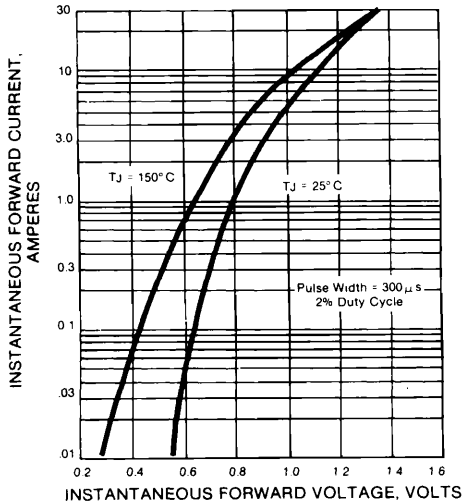
1. Unit mounted on 8.7" sq. x 24" THK (22cm. sq. x 0.6 cm) Al Plate.
2. Unit mounted P.C. board at .375", 9.5mm lead lengths.
3. Measured at 1 MHz and applied reverse voltage of 4.0 Volts.
4. Thermal Resistance from Junction to Case with units mounted on a 8.6" x 8.6" x .24" THK (22 x 22 x 0.6 cm).

# RATINGS AND CHARACTERISTIC CURVES KBPC8005 THRU KBPC810

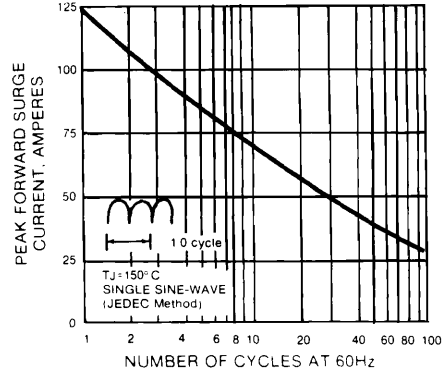
**FIG. 1 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



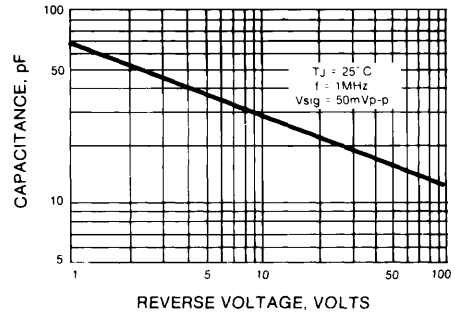
**FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT**



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



**FIG. 4 — TYPICAL JUNCTION CAPACITANCE PER ELEMENT**



**FIG. 5 — TYPICAL REVERSE CHARACTERISTICS**

