SEMICONDUCTOR

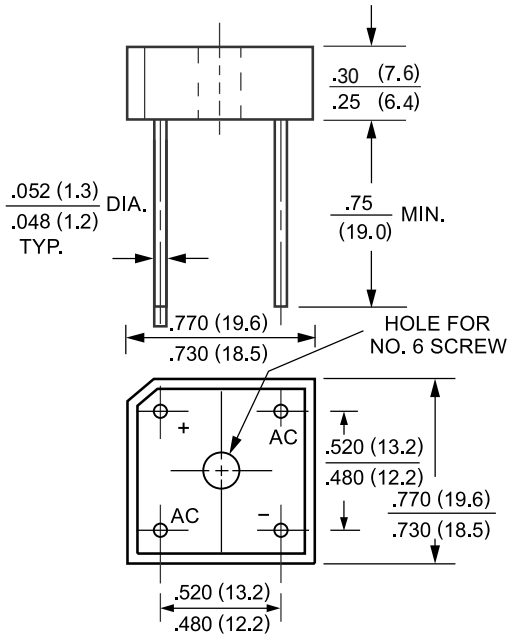
DATA SHEET

KBPC8005 THRU KBPC810

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER VOLTAGE RANGE-50 to1000 Volts CURRENT-8.0 Amperes

Pb

BR-10 Unitinch(mm)



FEATURES

- Surge overload rating: 125 Amperes peak
- Low forward voltage drop
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: MIL-STD-202, Method 208 guaranteed
- Polarity: Symbols molded or marked on body
- Mounting position: Any
- Weight: 6.9 grams

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	KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at TC = 50℃	IO	8.0							Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)	IFSM	125							Amps
Maximum Forward Voltage Drop per element at 4.0A DC	VF	1.1							Volts
Maximum DC Reverse Current at Rate DC Blocking Voltage per element **@TA = 25℃**	IR	5.0							μ Amps
@TC =100℃		500							
I2t Rating for Fusing(t<8.3ms)	I2t	166							A2Sec
Typical Junction Capacitance (Note1)	CJ	200							pF
Typical Thermal Resistance (Note2)	R θ JC	21							℃/W
Operating Temperature Range	TJ	-55 to +150							℃
Storage Temperature Range	TSTG	-55 to +150							℃

NOTES: 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

2.Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5x0.5”(13x13mm)copper pads.

DEVICE CHARACTERISTICS

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Fig. 1 – MAXIMUM FORWARD SURGE CURRENT

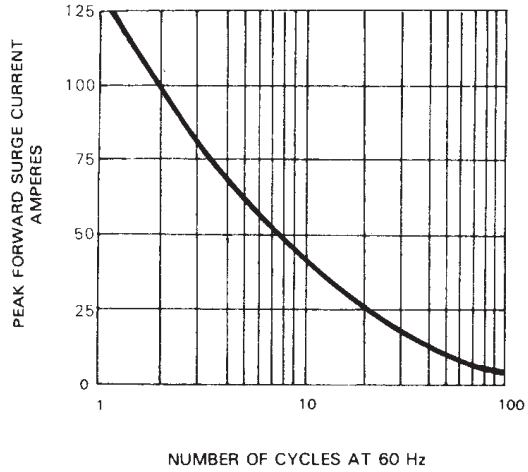

Fig. 2 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

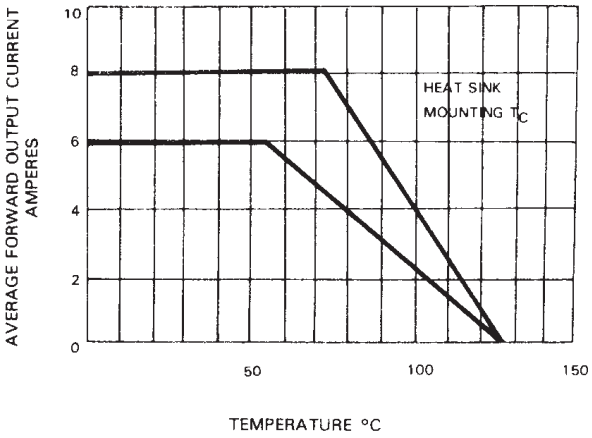

Fig. 3 – TYPICAL FORWARD CHARACTERISTICS

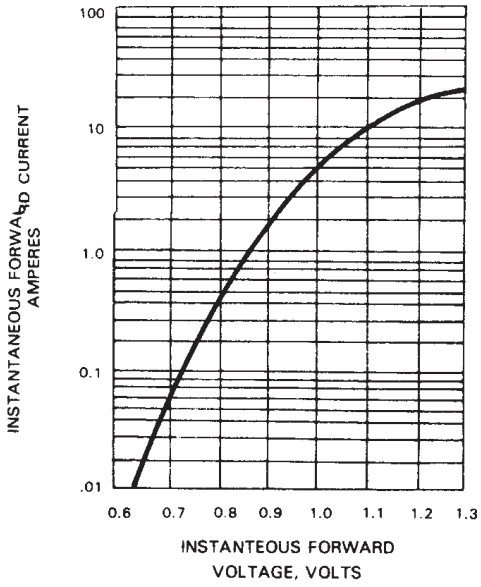

Fig. 4 – TYPICAL REVERSE CHARACTERISTICS