

DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

KBPC10005 THRU KBPC1010

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 10 Amperes

FEATURES

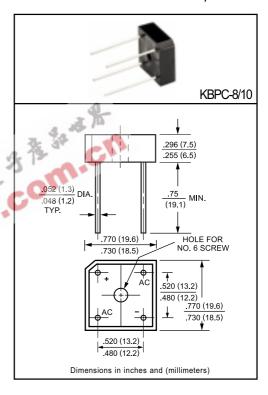
- * Surge overload rating: 200 Amperes peak
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked * 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, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



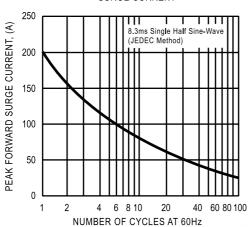
		SYMBOL	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 50°C		Io	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	200							Amps
Maximum Forward Voltage Drop per element at 5.0A DC		VF	1.1						Volts	
Maximum DC Reverse Current at Rated	@TA = 25°C	le le	10							uAmps
DC Blocking Voltage per element	@Tc = 100°C	IR IR	500							
I ² t Rating for Fusing (t<8.3ms)		I²t	166						A ² Sec	
Typical Junction Capacitance (Note1)		Cı	200						pF	
Typical Thermal Resistance (Note 2)		RθJA	21						°C/W	
Operating Temperature Range		TJ	-55 to + 125							٥C
Storage Temperature Range		Tstg		-55 to + 150						

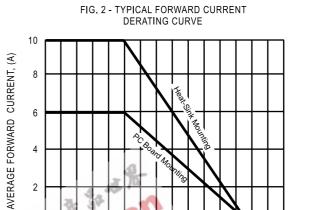
NOTES: 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

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

RATING AND CHARACTERISTIC CURVES (KBPC10005 THRU KBPC1010)

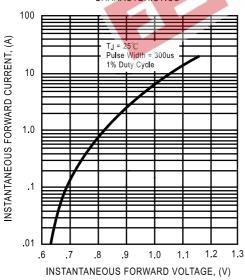
FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT





50

FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

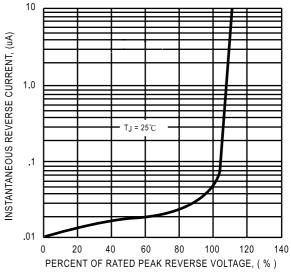




CASE TEMPERATURE, (℃)

100

150





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