



KBPC10005 THRU KBPC1010

SINGLE PHASE SILICON BRIDGE RECTIFIER

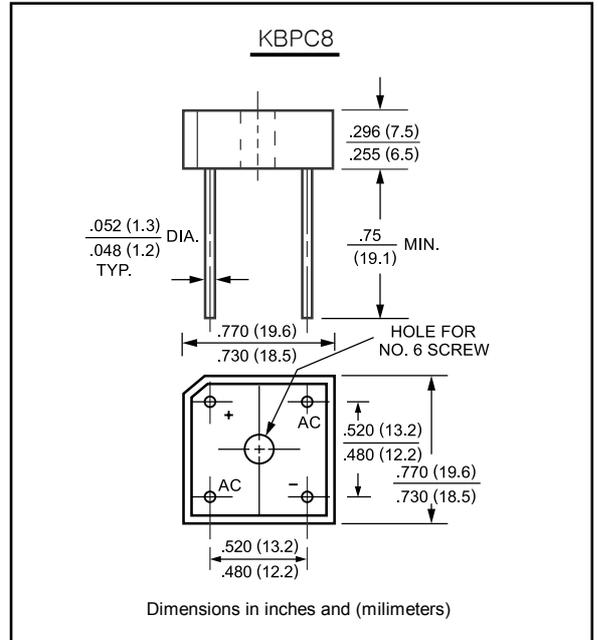
Reverse Voltage - 50 to 1000 Volts Forward Current - 10.0 Ampere

FEATURES

- Diffused Junction
- Surge overload rating: 200A peak

MECHANICAL DATA

- Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
- Terminals: Plated leads solderable per MIL-STD 202, method 208
- Mounting Position: Any
- Marking: Type Number



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%.

Characteristic	SYMBOL	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	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°C	I _O	10							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	200							Amps	
Maximum Forward Voltage Drop per element at 5.0A DC	V _F	1.1							Volts	
Maximum DC Reverse Current at Rated	I _R							@T _A = 25°C	10	uAmps
DC Blocking Voltage per element								@T _C = 100°C	500	
I ² t Rating for Fusing (t<8.3ms)	I ² t	166							A ² Sec	
Typical Junction Capacitance (Note1)	C _J	200							pF	
Typical Thermal Resistance (Note 2)	R _{θJA}	21							°C/W	
Operating Temperature Range	T _J	-55 to + 125							°C	
Storage Temperature Range	T _{STG}	-55 to + 150							°C	

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.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

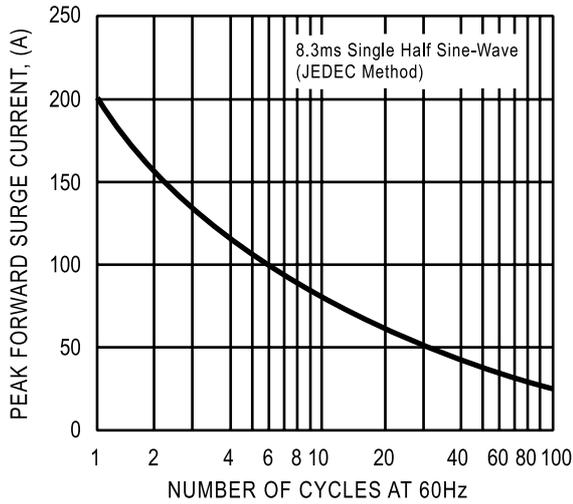


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

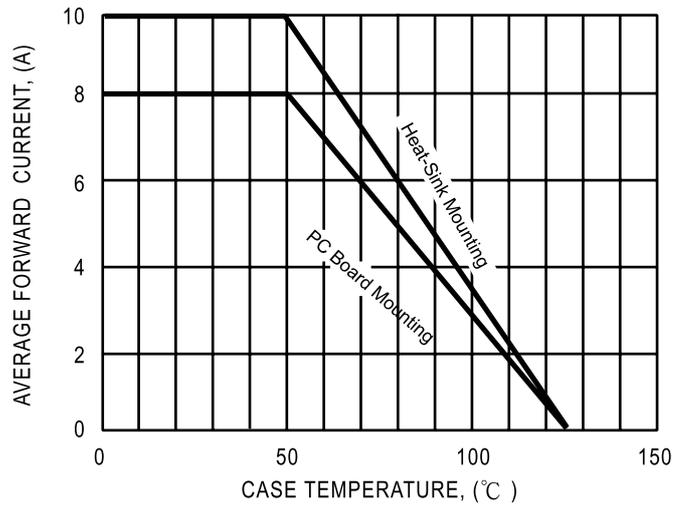


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

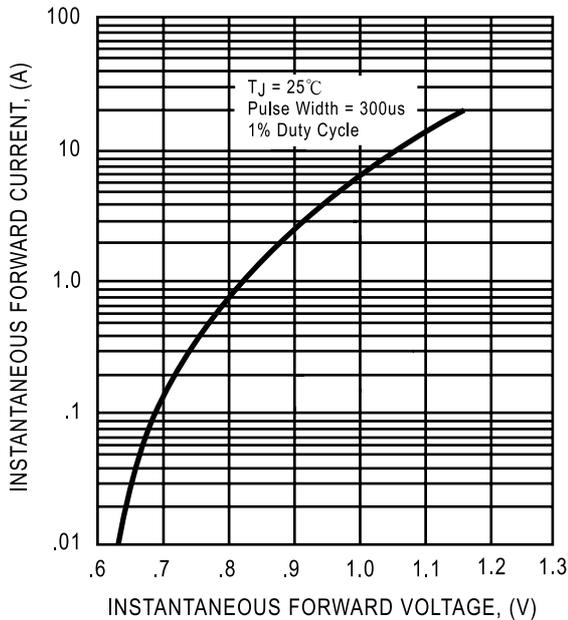


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

