



FORWARD INTERNATIONAL ELECTRONICS LTD.

**SEMICONDUCTOR
TECHNICAL DATA**

**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

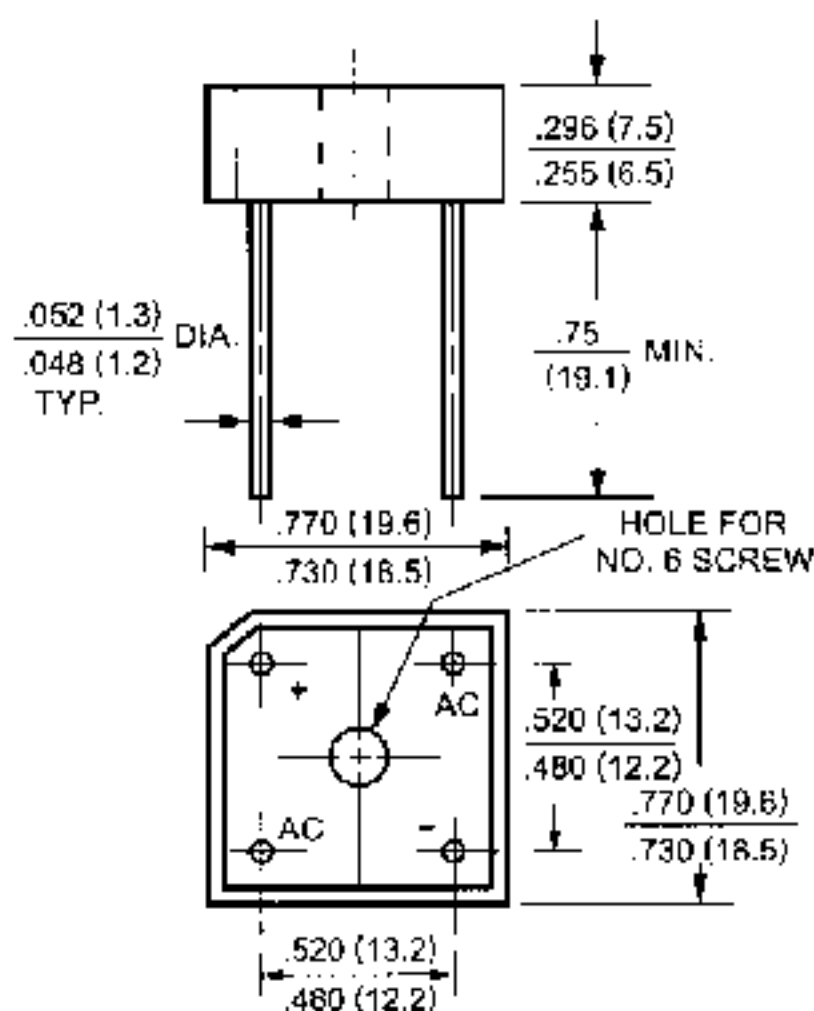
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 6.9 grams

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%.



KBPC-8/10



Dimensions in inches and (millimeters)

	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 DC Blocking Voltage per element	I _R								@ T _A = 25°C	10	uAmps
									@ T _C = 100°C	500	
I ² t Rating for Fusing (I < 8.3ms)	I ² t	166							A ² Sec		
Typical Junction Capacitance (Note 1)	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

RATING AND CHARACTERISTIC CURVES (KBPC10005 THRU KBPC1010)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

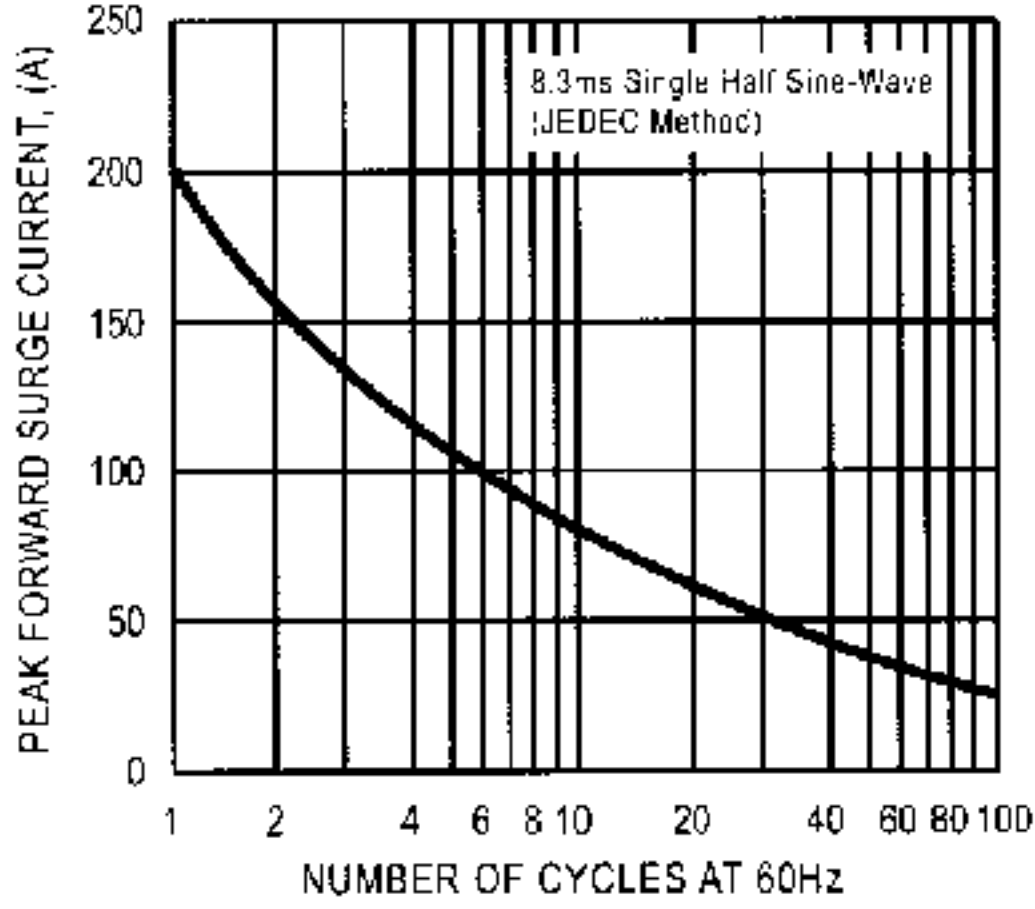


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

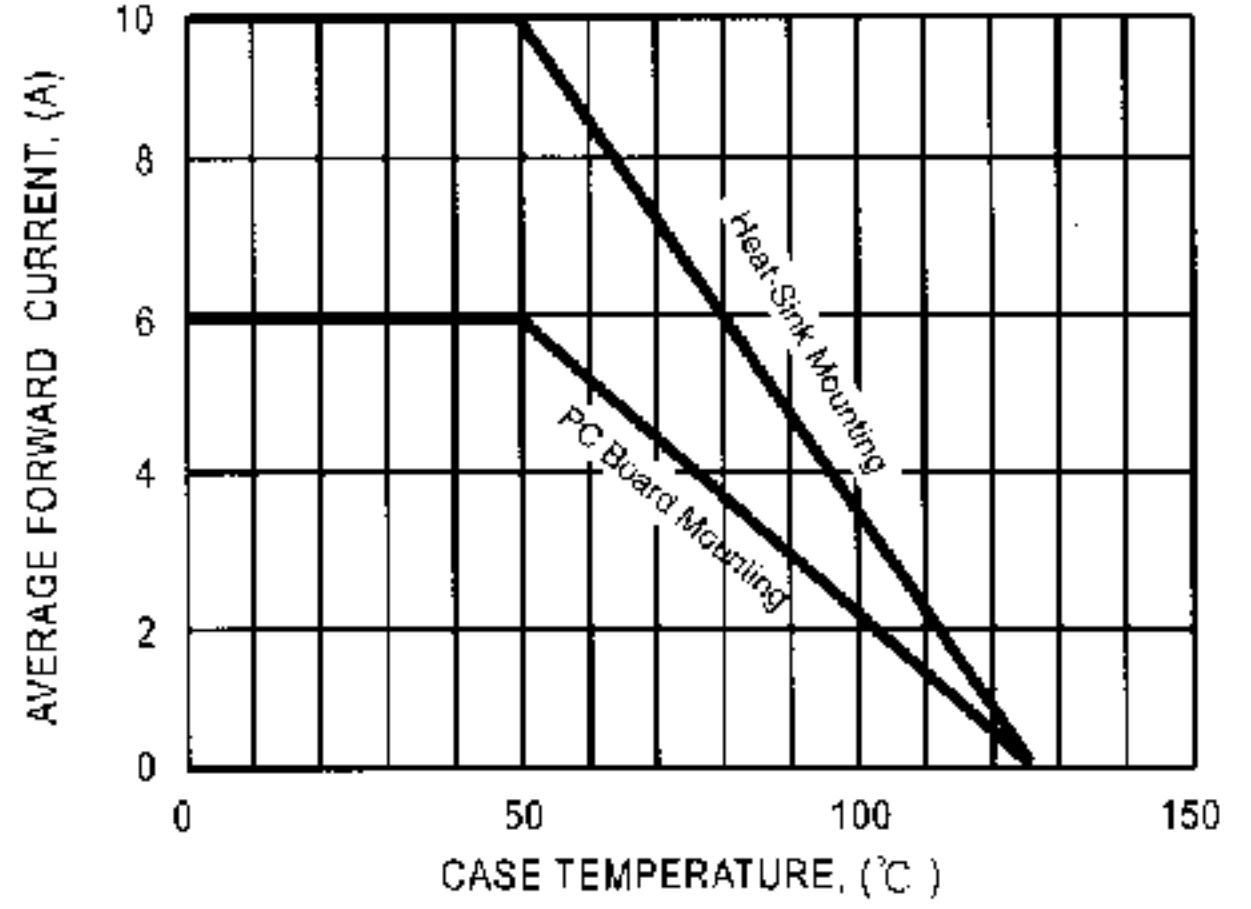


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

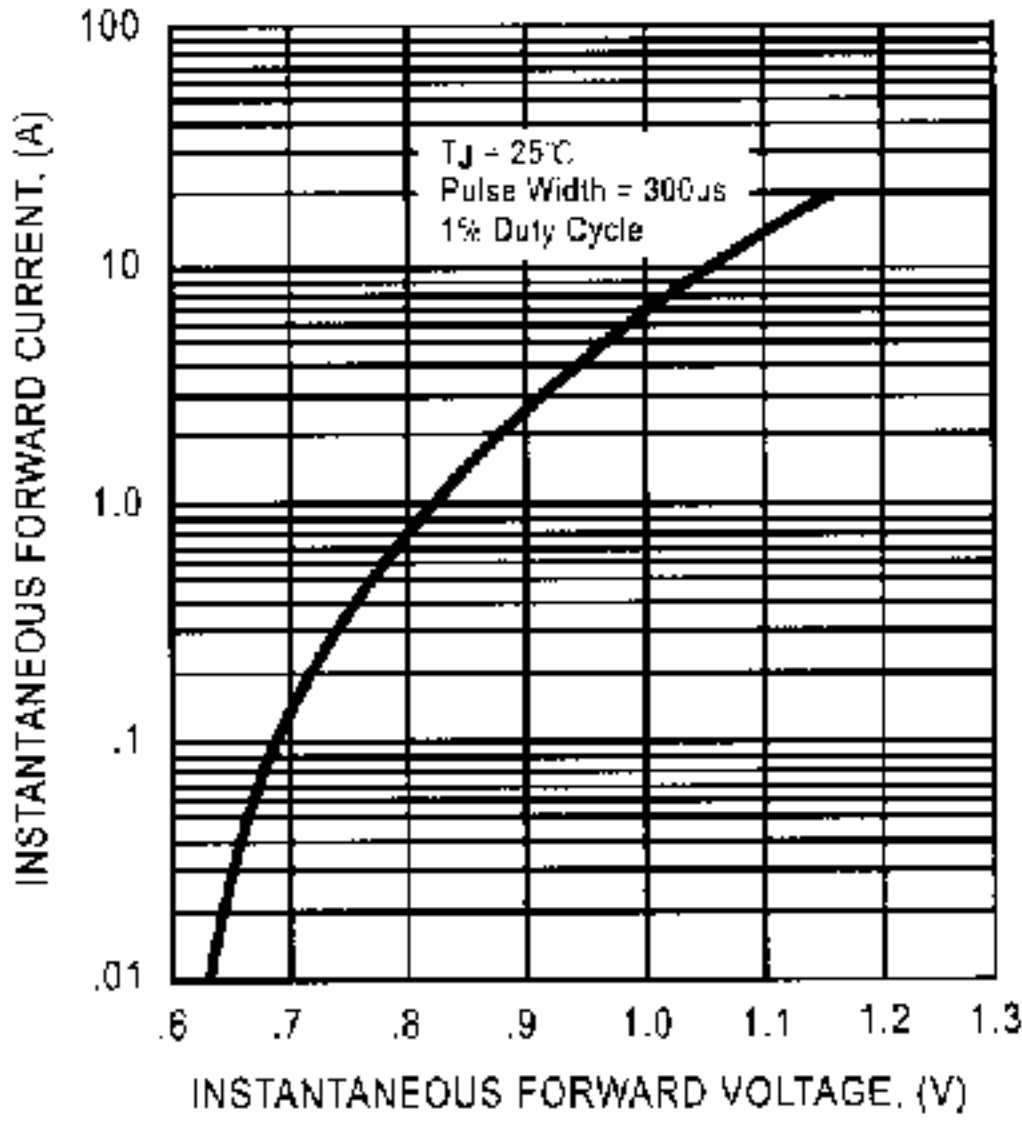


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

