



FORWARD INTERNATIONAL ELECTRONICS LTD.

SEMICONDUCTOR
TECHNICAL DATA

KBPC / BR
1005 / 305
THRU
KBPC / BR
110 / 310

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts
CURRENT - 3.0 Amperes

FEATURES

- * Surge overload rating: 50 Amperes peak
- * Low forward voltage drop
- * Small size: simple installation

MECHANICAL DATA

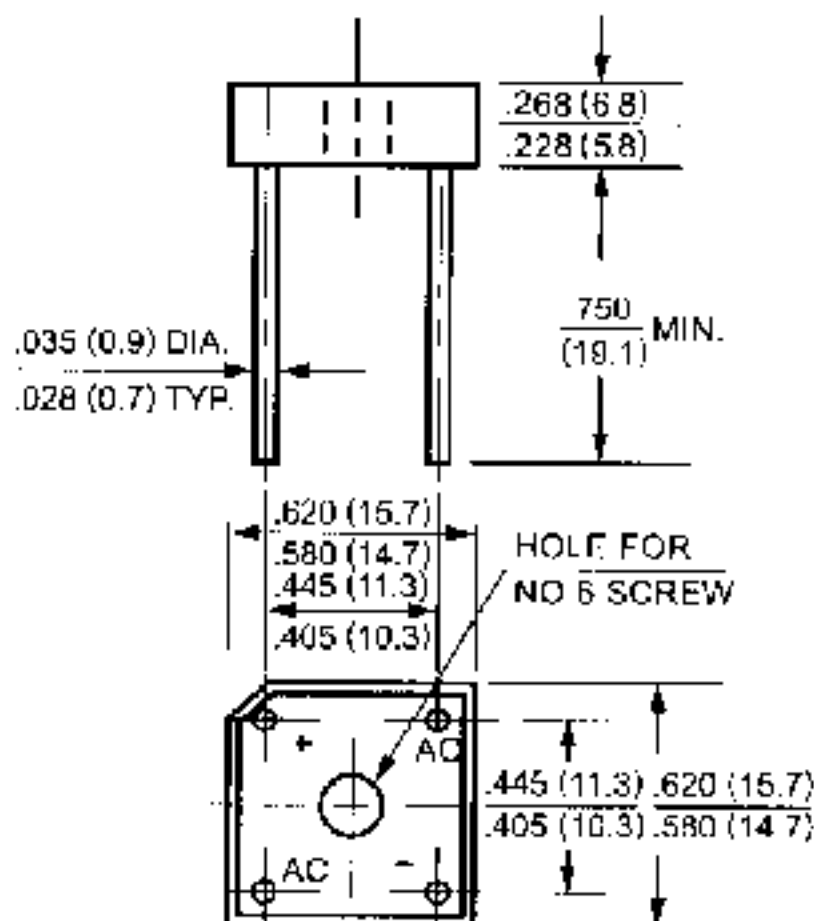
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 3.36 grams

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%.



BR-3



Dimensions in inches and (millimeters)

		KBPC 1005	KBPC 101	KBPC 102	KBPC 104	KBPC 106	KBPC 108	KBPC 110		
		SYMBOL	BR305	BR31	BR32	BR34	BR36	BR38	BR310	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 = 55°C		Io	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	50							Amps
Maximum Forward Voltage Drop per element at 1.5A DC		Vf	1.0							Volts
Maximum CD Reverse Current at Rated DC Blocking Voltage per element:	@ TA = 25°C	IR	10							uAmps
	@ Tc = 130°C		500							
I ² t Rating for Fusing (t < 8.3ms)		I ² t	10							A ² Sec
Typical Junction Capacitance (Note1)		Cj	21							pF
Operating Temperature Range		Tj	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 0.47 x 0.47" (12x12mm) copper pads.

RATING AND CHARACTERISTIC CURVES (KBPC1005 BR305 THRU KBPC110 BR310)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

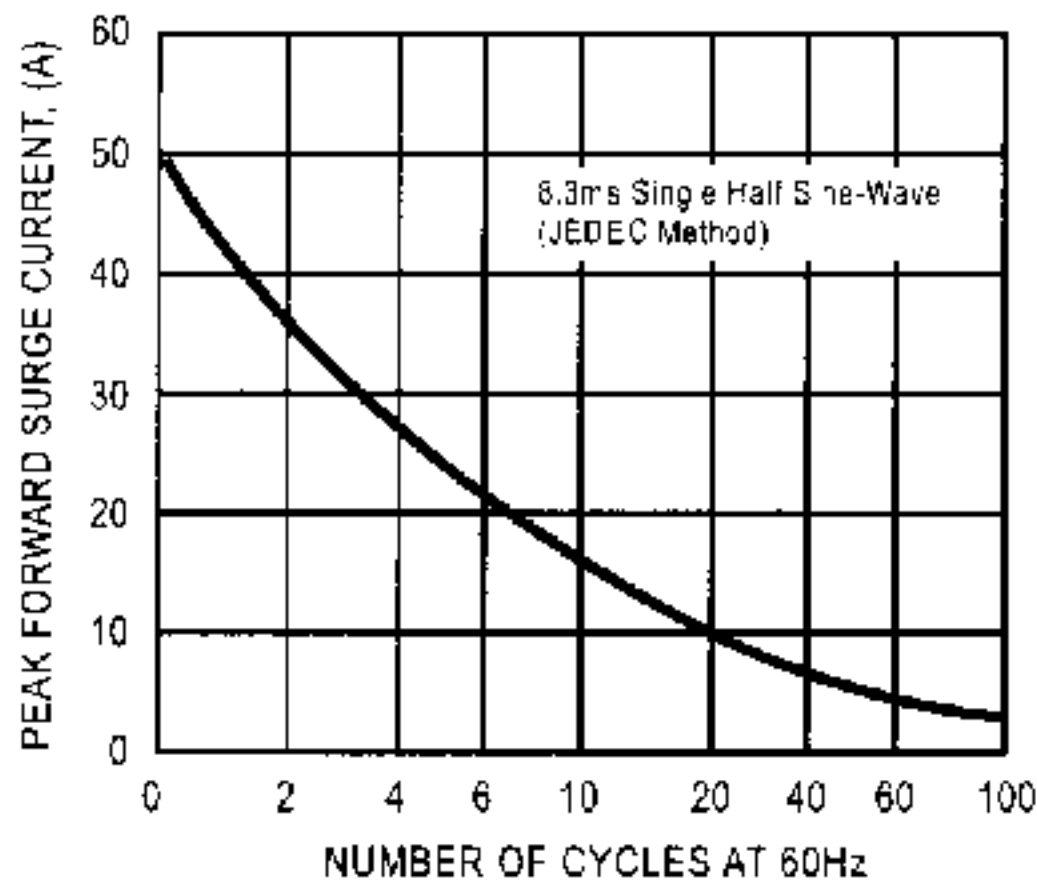


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

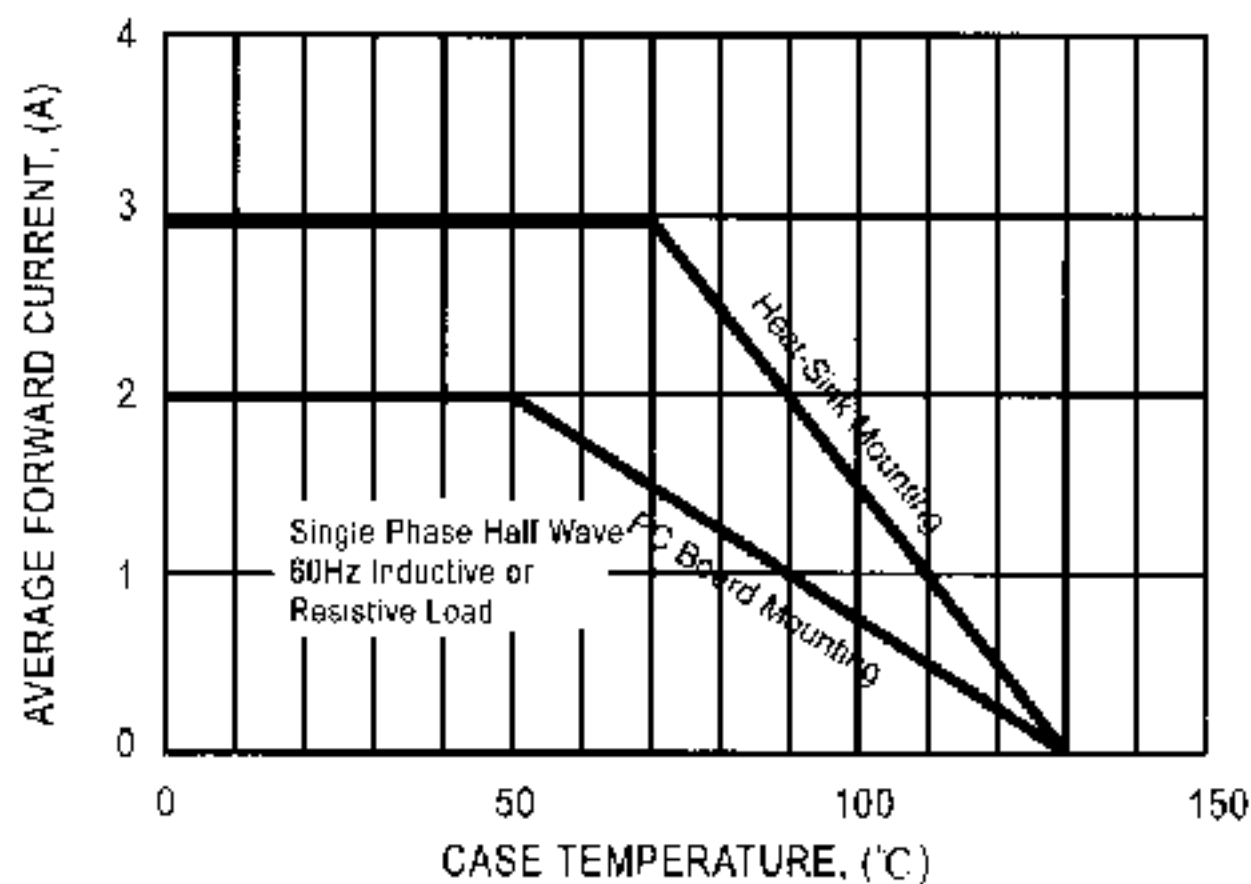


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

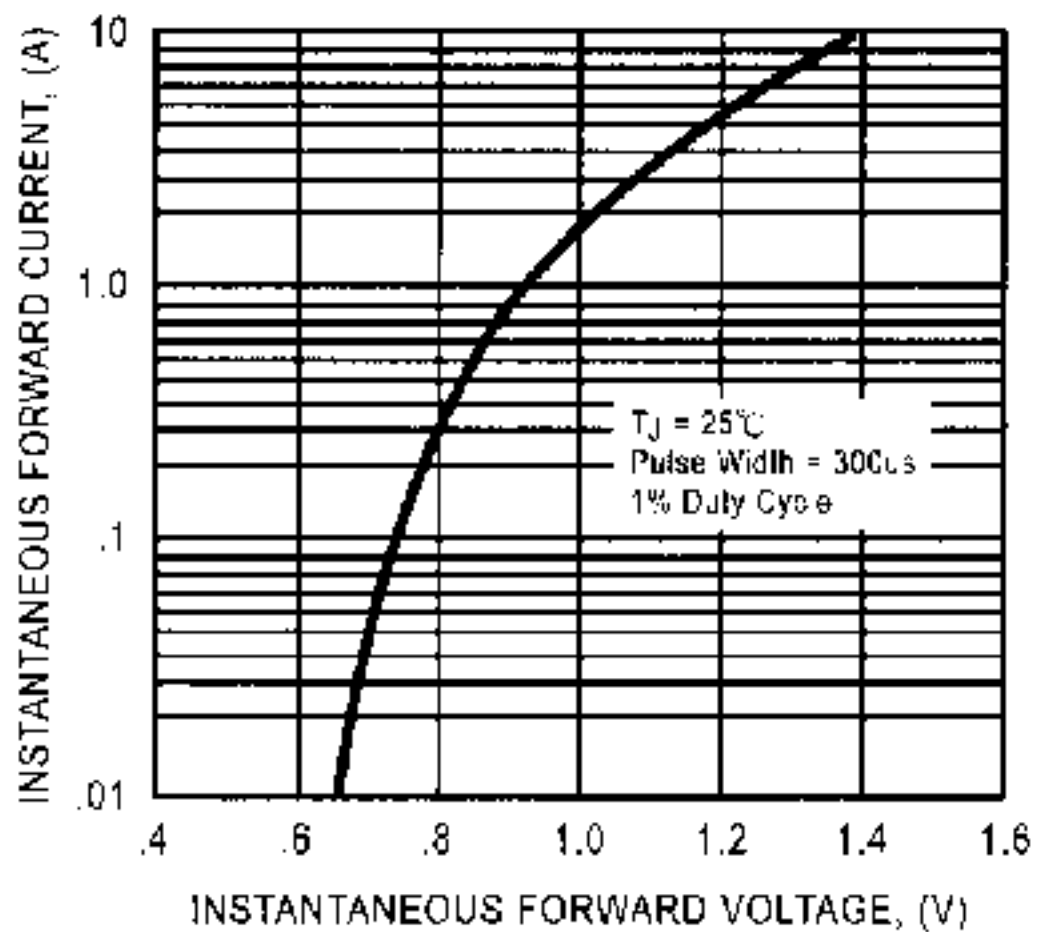


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

