

### FUKUCOM COMPANY LTD.

# 福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD, KWUN TONG, KOWLOON, HONG KONG.

TEL: 2790-0314

FAX: 2790-0206



#### RECTIFIER SPECIALISTS

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**

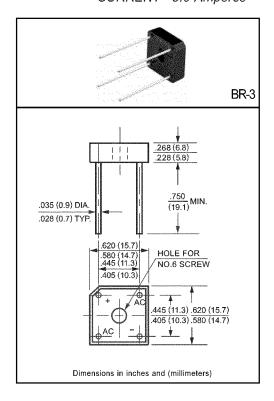
- \* Surge overloa rating: 50 Amperes peak
- \* Low forward voltage drop
- \* Small size: simple installation

#### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed 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%.



			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		Voc	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 50°C		lo	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		lfsm	50						Amps	
Maximum Forward Voltage Drop per element at 1.5A DC		VF	1.0						Volts	
Maximum CD Reverse Current at Rated	@TA = 25°C	l <sub>R</sub>	10							uAmps
DC Blocking Voltage per element	@Tc = 100°C		500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		I <sup>2</sup> t	10						A <sup>2</sup> Sec	
Typical Junction Capacitance ( Note1)		CJ	21							pF
Operating Temperature Range		TJ	-55 to + 125							°C
Storage Temperature Range		Tstg	-55 to + 150							°C

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

 $<sup>2.</sup> Thermal\ Resistance\ from\ Junction\ to\ Ambient\ and\ from\ junction\ to\ lead\ mounted\ on\ P.C.B.\ with\ 0.47\ x\ 0.47"\ (12x12mm)\ copper\ pads.$ 



## FUKUCOM COMPANY LTD.

# 福の霊の有の限の公の司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD, KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206

RATING AND CHARACTERISTIC CURVES

KBPC1005 THRU KBPC110

BR305

2305

BR310

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT 60 PEAK FORWARD SURGE CURRENT, (A) 50 8.3ms Single Half Sine-Wave (JEDEC Method) 40 30 20 10 0 0 60 100 2 4 6 10 40 20 NUMBER OF CYCLES AT 60Hz

A VERAGE FORMARD CURRENT (A)

A VERAGE FORMARD CURRENT (A)

Single Phase Half Wave Control of the control of th

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

