



DC COMPONENTS CO., LTD.

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

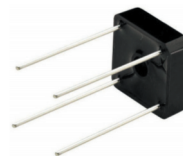
- * Surge overloa rating: 50 Amperes peak
- * Low forward voltage drop
- * Small size: simple installation

MECHANICAL DATA

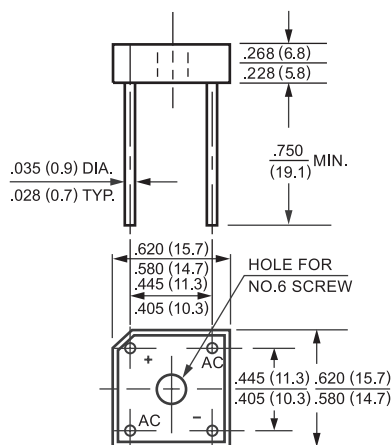
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 3.36 grams

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%.



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		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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	3.0						Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	50						Amps	
Maximum Forward Voltage Drop per element at 1.5A DC		V _F	1.0						Volts	
Maximum CD Reverse Current at Rated	@ T _A = 25°C	I _R	10						uAmps	
DC Blocking Voltage per element	@ T _C = 100°C		500							
I ² t Rating for Fusing (t<8.3ms)		I ² t	10						A ² Sec	
Typical Junction Capacitance (Note1)		C _J	21						pF	
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 0.47 x 0.47" (12x12mm) copper pads.

Diode, Bridge
INDEX 1
Rectifiers

Diode, Bridge
INDEX 2
Rectifiers

Transistors,
INDEX 1
SCR, IC

Transistors,
INDEX 2
SCR, IC



RATING AND CHARACTERISTIC CURVES (KBPC1005 BR305 THRU KBPC110 BR310)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

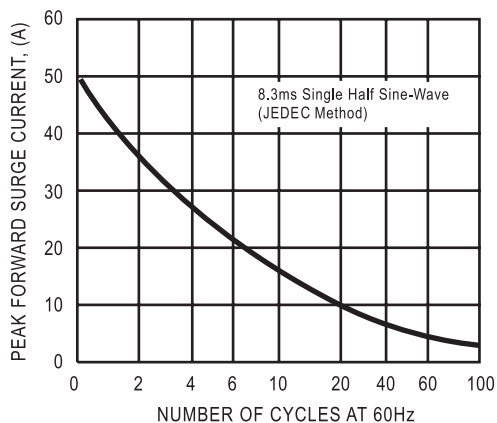


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

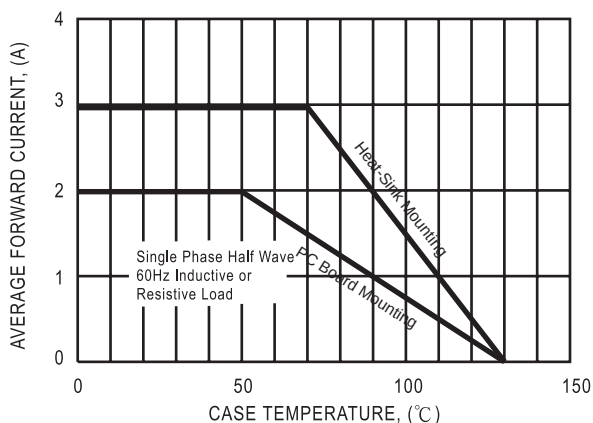


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

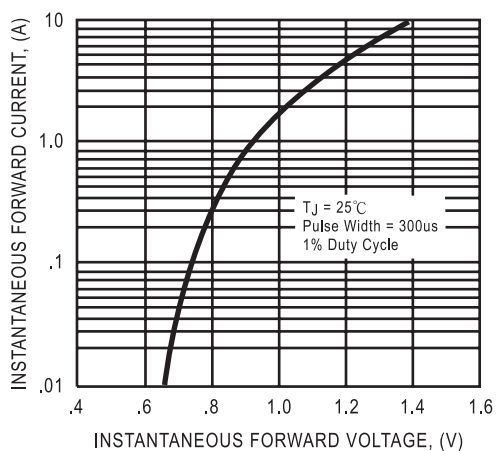
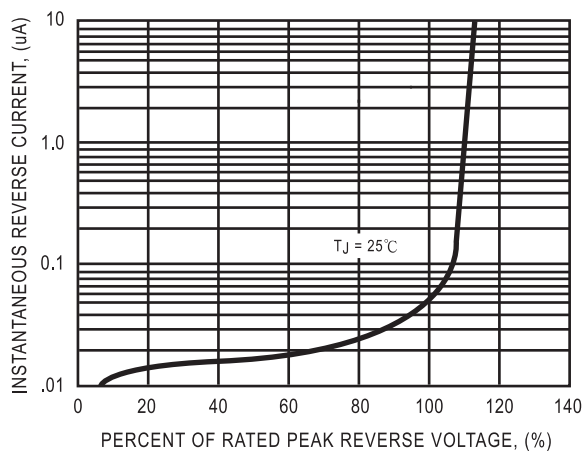


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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