



## SINGLE-PHASE BRIDGE RECTIFIER

BR305            THRU    BR310  
 KBPC1005    THRU    KBPC110

**VOLTAGE RANGE**  
**CURRENT**

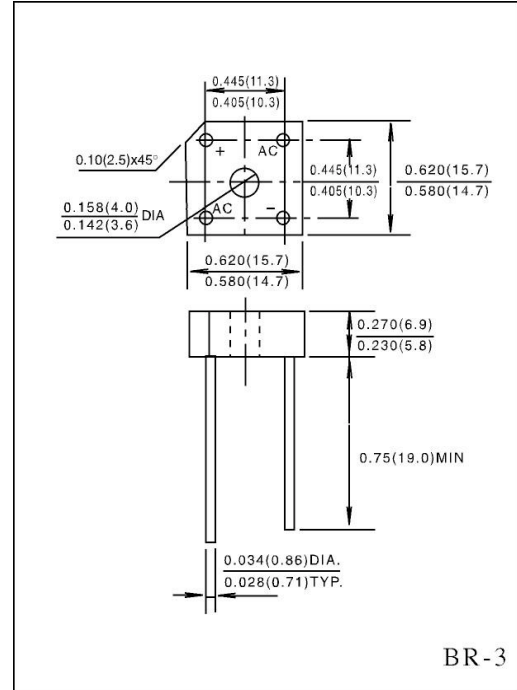
50 to 1000 Volts  
 3.0 Ampere

### FEATURES

- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:  
 260°C/10 second, at 5 lbs. (2.3kg) tension.

### MECHANICAL DATA

- Case: Molded Plastic body
- Terminal: Lead solderable per MIL - STD - 202E method 208C
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #6 screw, 5in. - lbs. Torque max.
- Weight: 0.093 ounce, 2.62 gram



### 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 derate current by 20%

	SYMBOLS	KBPC1005	KBPC1010	KBPC1020	KBPC1040	KBPC1060	KBPC1080	KBPC1100	UNIT
		BR305	BR310	BR320	BR340	BR360	BR380	BR310	
Maximum Repetitive 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 $T_C = 50^\circ C$ (Note2)	$I_{(AV)}$	3.0							Amps
at $T_A = 25^\circ C$ (Note3)		2.0							
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method )	$I_{FSM}$	60							Amps
Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	15							$A^2s$
Maximum Instantaneous Forward Voltage Drop per bridge element at 1.5A	$V_F$	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	$I_R$	$T_A = 25^\circ C$							$\mu A$
		$T_A = 100^\circ C$							mA
Typical Junction Capacitance per element(Note 1)	$C_j$	20							pF
Typical Thermal Resistance per element (Note 2)	$R_{\theta JA}$	12							$^\circ C/W$
Operating Temperature Range	$T_J$	(-55 to +125)							$^\circ C$
Storage Temperature Range	$T_{STG}$	(-55 to +150)							

### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 4.0" X 4.0" X 0.11" thick (10.5 X 10.5 X 0.3cm) Al. plate.
3. Unit mounted on P.C.B. at 375" (9.5mm) lead length with 0.5" X 0.5" (12 X 12mm) copper pads.

FIG.1-DERATING CURVE FOR  
OUTPUT DERTAINING CURVE

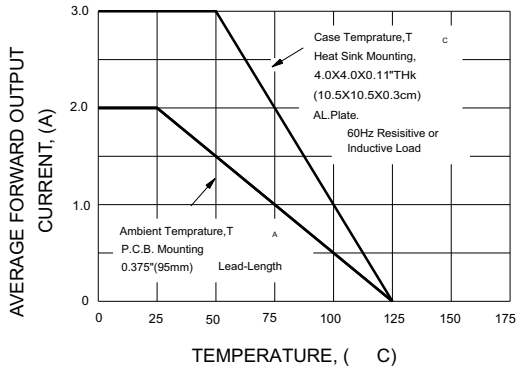


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

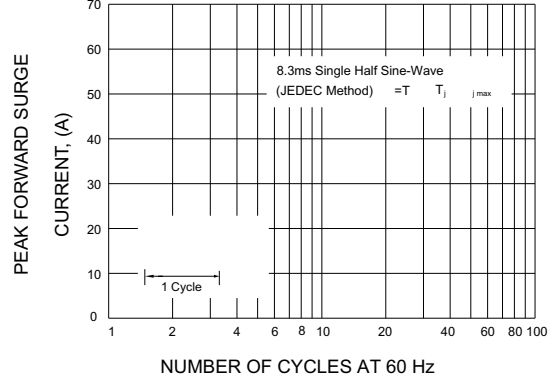


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

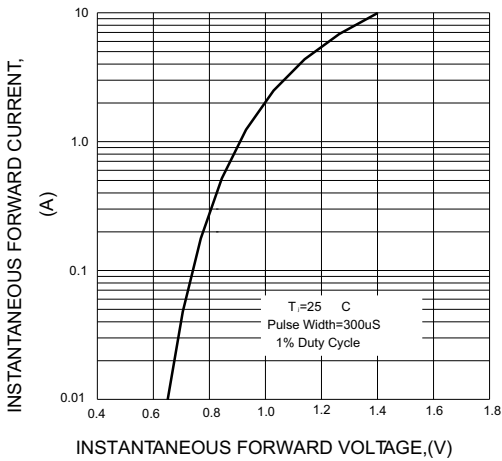


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

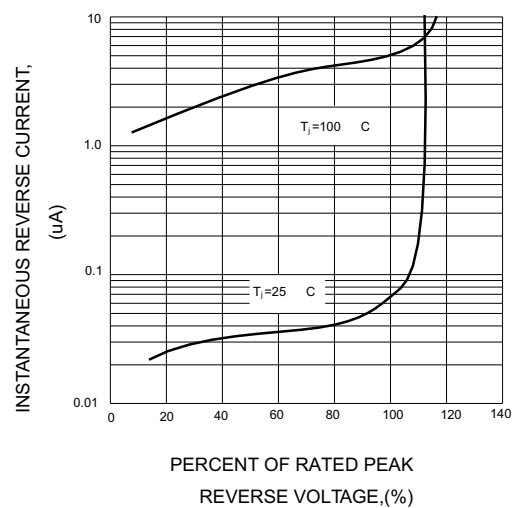


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

