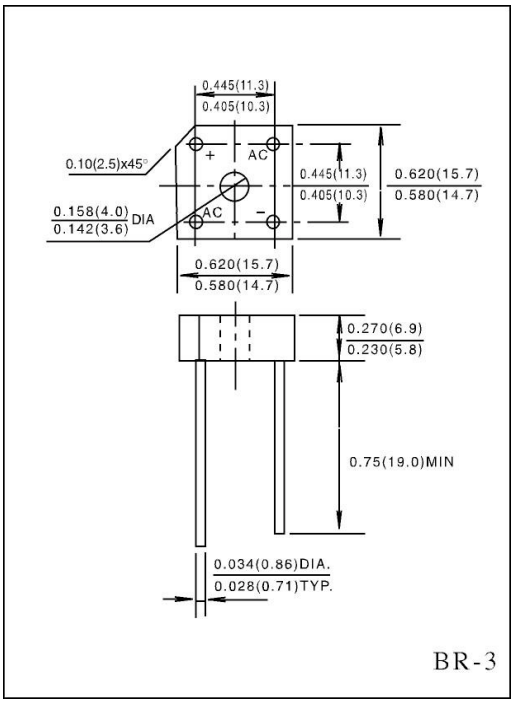
SINGLE-PHASE BRIDGE RECTIFIER

BR305 THRU BR310
KBPC1005 THRU KBPC110

VOLTAGE RANGE 50 **to** 1000 **Volts**
CURRENT 3.0 **Ampere**

FEATURES

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



BR-3

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℃ ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

	SYMBOLS	KBPC1005 BR305	KBPC101 BR31	KBPC102 BR32	KBPC104 BR34	KBPC106 BR36	KBPC108 BR38	KBPC110 BR310	UNIT
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℃ (Note2)	$I_{(AV)}$	3.0							Amps
Maximum Average Forward Rectified Output Current, at T_A = 25℃ (Note3)	$I_{(AV)}$	2.0							Amps
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 T_A = 25℃	I_R	10							μA
Maximum DC Reverse Current at rated DC blocking voltage per element T_A = 100℃	I_R	0.5							mA
Typical Junction Capacitance per element(Note 1)	C_j	20							pF
Typical Thermal Resistance per element (Note 2)	$R_{\theta JA}$	12							℃/W
Operating Temperature Range	T_J	(-55 to +125)							℃
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.

Lead Free
RoHS Compliant

RATINGS AND CHARACTERISTIC CURVES

KBPC1005 BR305 THRU KBPC110 BR310

FIG.1-DERATING CURVE FOR
OUTPUT DERTAING CURVE

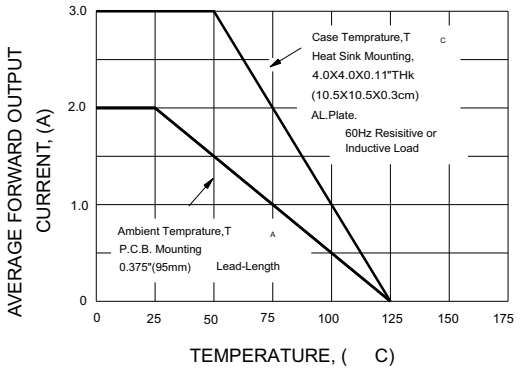


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

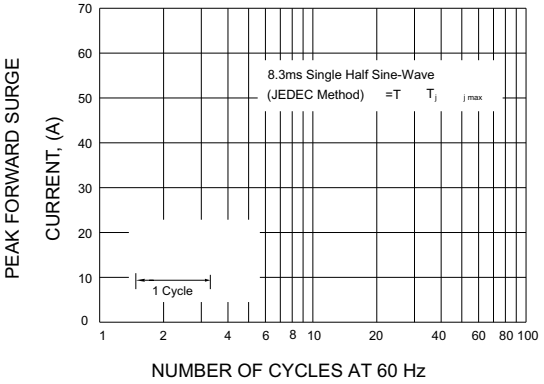


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

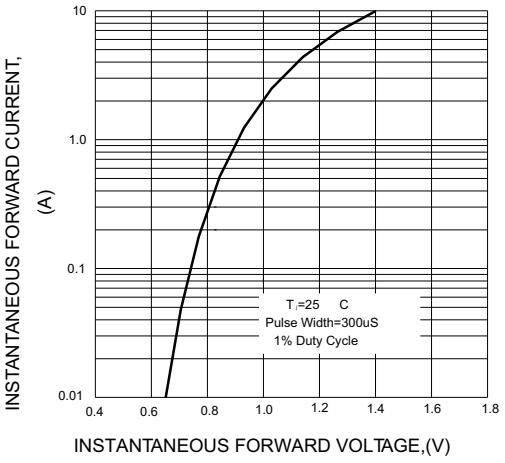


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

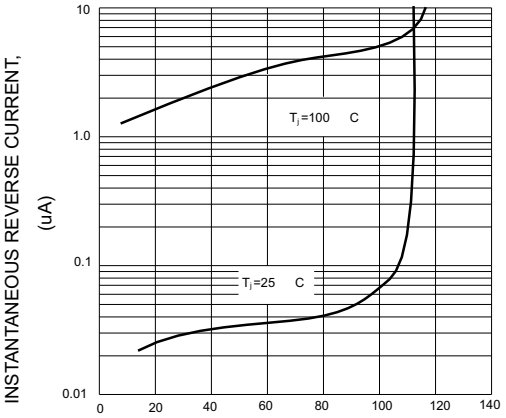


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT