



SINGLE-PHASE BRIDGE RECTIFIER

**KBPC6005 THRU KBPC610
BR605 THRU BR610**

**VOLTAGE RANGE
CURRENT**

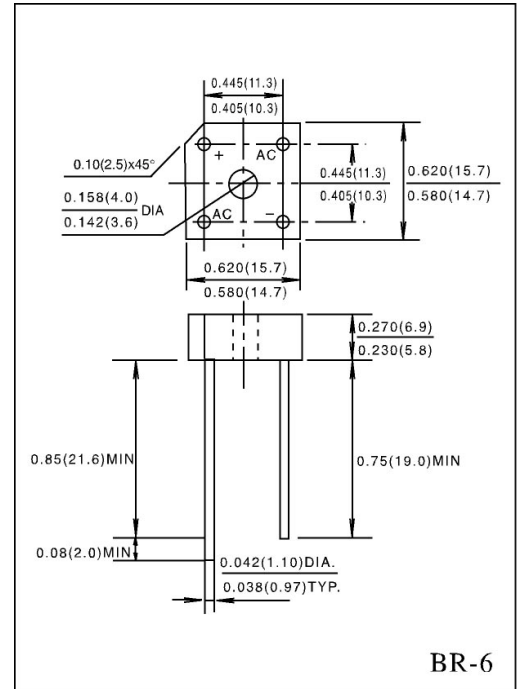
**50 to 1000 Volts
6.0 Ampere**

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 isolation voltage from case to leads.
- 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, 5 in,- lbs. Torqute Max.
- Weight: 0.13 ounce, 3.66 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	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	UNIT
		6005	601	602	604	606	608	610	
		BR605	BR61	BR62	BR64	BR66	BR68	BR610	
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 $T_C = 50^\circ\text{C}$ (Note1)	$I_{(AV)}$	6.0							Amps
$T_A = 25^\circ\text{C}$ (Note2)		3.0							
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)	I_{FSM}	125							Amps
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	64							A^2s
Maximum Instantaneous Forward Voltage Drop per bridge element at 3.0A	V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	I_R	$T_A = 25^\circ\text{C}$							μA
		$T_A = 100^\circ\text{C}$							mA
Isolation Voltage from case to leads.	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance(Note 1)	$R_{\theta JC}$	8.0							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	(-55 to +125)							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)							

1. Unit mounted on 6.0" X 5.5" X 0.11" thick (15 X 14 X 0.3cm) Al. Plate.

2. Unit mounted on P.C. Borad 0.375" (9.5mm) lead length with 0.47" X 0.47" (12 X 12mm) copper pads.

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

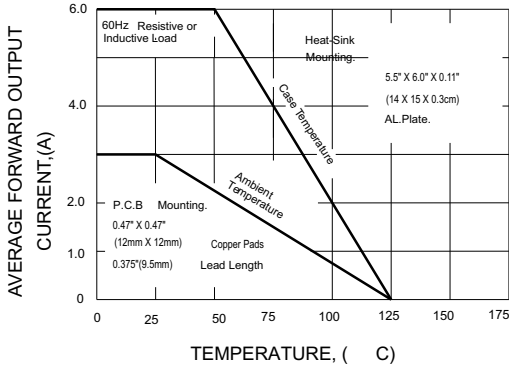


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

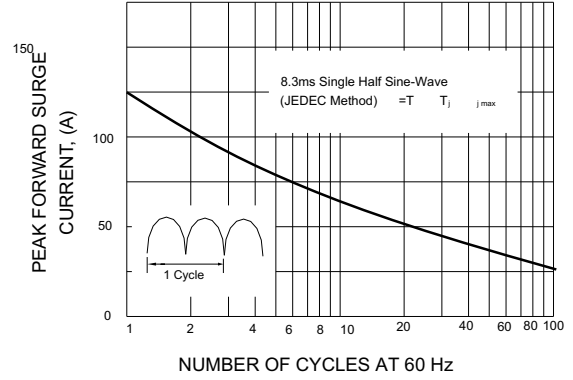


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

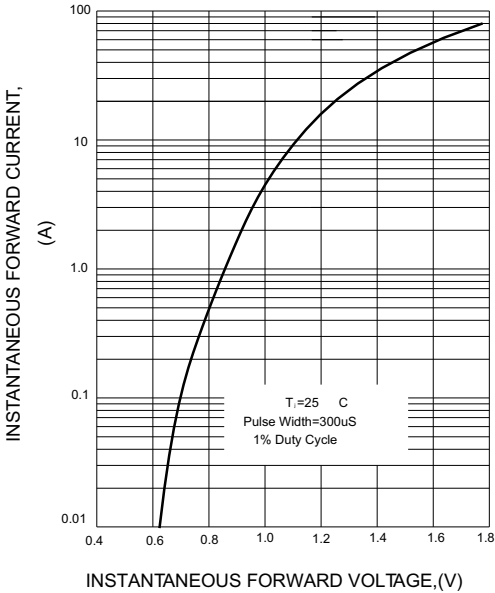


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

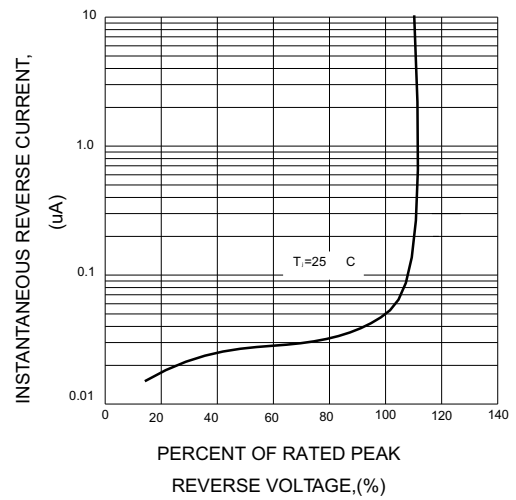


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

