

## SINGLE PHASE BRIDGE RECTIFIER

**KBPC6005 THRU KBPC610**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**BR605 THRU BR610**

**CURRENT**

**6.0 Ampere**

### FEATURES

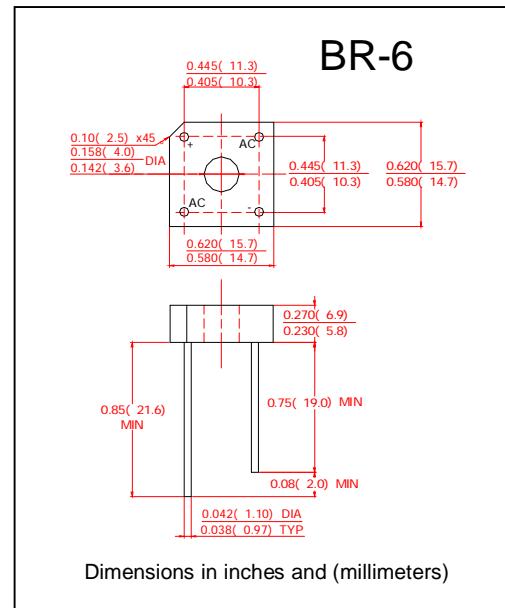
- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capacity
- Ideal for printed circuit board
- High isolation voltage from case to leads
- High temperature soldering guaranteed: 260°C / 10 seconds, at 5 lbs. (2.3kg) tension.

### MECHANICAL DATA

- Technology: Cell with vacuum soldered
- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 5 in-lbs torque 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	KBPC6005 BR605	KBPC601 BR61	KBPC602 BR62	KBPC604 BR64	KBPC606 BR66	KBPC608 BR68	KBPC610 BR610	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 $T_C = 50^\circ\text{C}$ (Note 1)	$I_{(AV)}$	6.0							Amps
$T_A = 25^\circ\text{C}$ (Note 2)		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							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop per Bridge element at 3.0 A	$V_F$	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	5.0							$\mu\text{A}$
$T_A = 100^\circ\text{C}$		1.0							$\text{mA}$
Isolation Voltage from case to lug	$V_{ISO}$	2500							Volts
Typical Thermal Resistance (Note 1)	$R_{\theta Jc}$	8.0							$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

#### Notes:

1. Unit mounted on 6.0" x 5.5" x 0.11" thick (15×14×0.3cm) AL plate
2. Unit mounted on P.C. Board 0.375" (9.5mm) lead length with 0.47"×0.47" (12×12mm) copper pads.

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### RATINGS AND CHARACTERISTIC CURVES KBPC6005 THRU KBPC610

FIG.1—DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

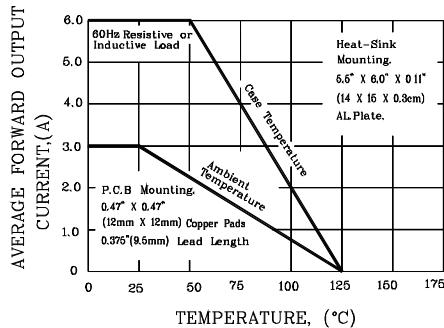


FIG.3—TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

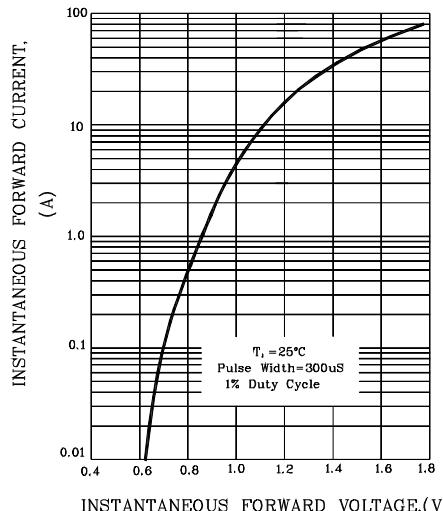


FIG.5—TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

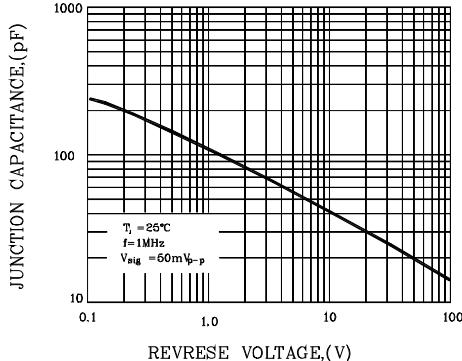


FIG.2—MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

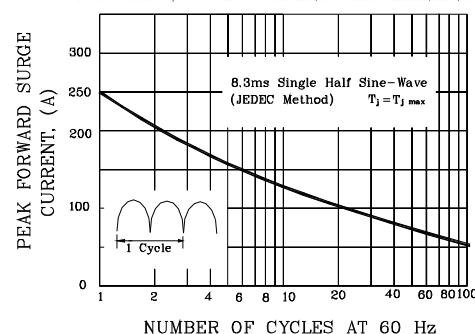


FIG.4—TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

