

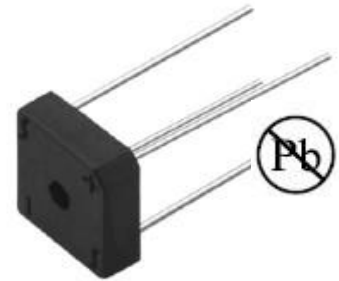


# SINGLE PHASE BRIDGE RECTIFIER BR605 ~ BR610 / KBPC6005 ~ KBPC610

## Single Phase Bridge Rectifier

### Features

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



### Mechanical Data

<b>Case:</b>	Molded plastic body
<b>Polarity</b>	Polarity symbols marked on case
<b>Terminals:</b>	Leads solderable per MIL-STD-202E method 208C
<b>Mounting position:</b>	Thru hole for #6 screw, 5 in, -lbs. Torqute Max
<b>Weight:</b>	0.13 ounce, 3.66 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	KBPC6005 BR605	KBPC601 BR61	KBPC602 BR62	KBPC604 BR64	KBPC606 BR66	KBPC608 BR68	KBPC610 BR610	Unit	Conditions
<b>VRRM</b>	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Max RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I(AV)</b>	Max Average Forward Rectified Current	6.0							A	TC=50°C ( Note 1 ) TA=25°C ( Note 2 )
		3.0								
<b>IFSM</b>	Peak Forward Surge Current	125							A	8.3ms single half sine-wave
<b>TJ,TSTG</b>	Operating and Storage Temperature Range	-55 to +125, -55 to +150							°C	
<b>I2t</b>	Rating for Fusing	64							A2s	T<8.3mS

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	KBPC6005 BR605	KBPC601 BR61	KBPC602 BR62	KBPC604 BR64	KBPC606 BR66	KBPC608 BR68	KBPC610 BR610	Unit	Conditions
<b>VF</b>	Max Instantaneous Forward Voltage	1.0							V	Drop per Bridge element 3.0A
<b>IR</b>	Max DC Reverse Current at Rated DC Blocking Voltage	10							µA	TA=25°C
		1.0							mA	TA=100°C
<b>Rθ-Jc</b>	Typical Thermal Resistance	8.0							°C/W	Note 1
<b>VISO</b>	Isolation Voltage from case to leads	2500							Vac	

#### Note:

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"X0.47" (12 X 12mm) copper pads

# BR605 ~ BR610 / KBPC6005 ~ KBPC610

## RATINGS AND CHARACTERISTIC CURVES THRU BR605~BR610/KBPC6005~KBPC610

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

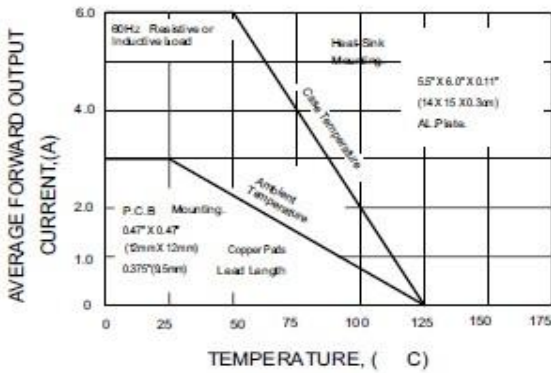


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

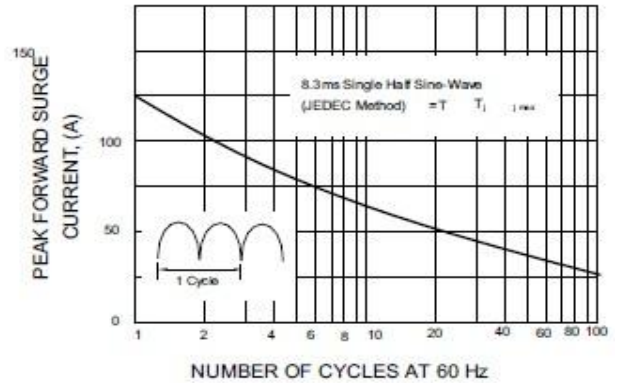


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

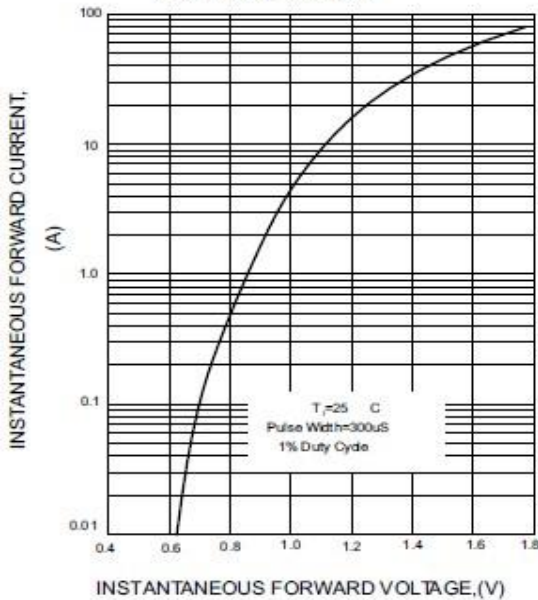


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

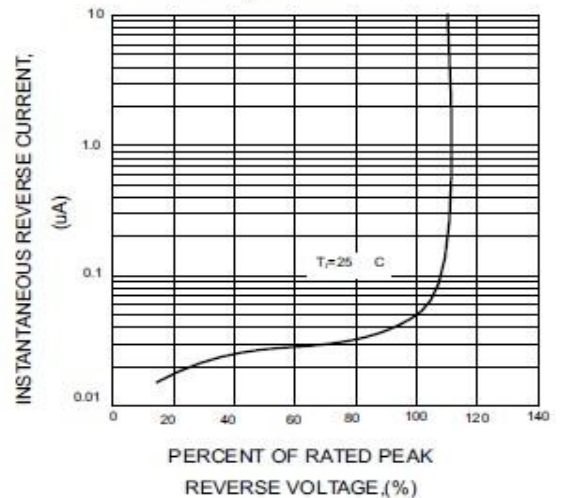
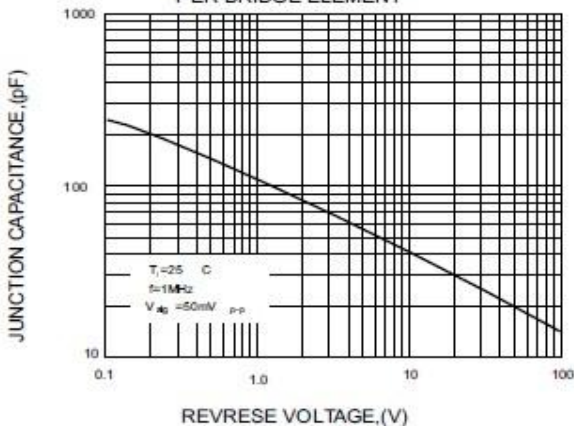
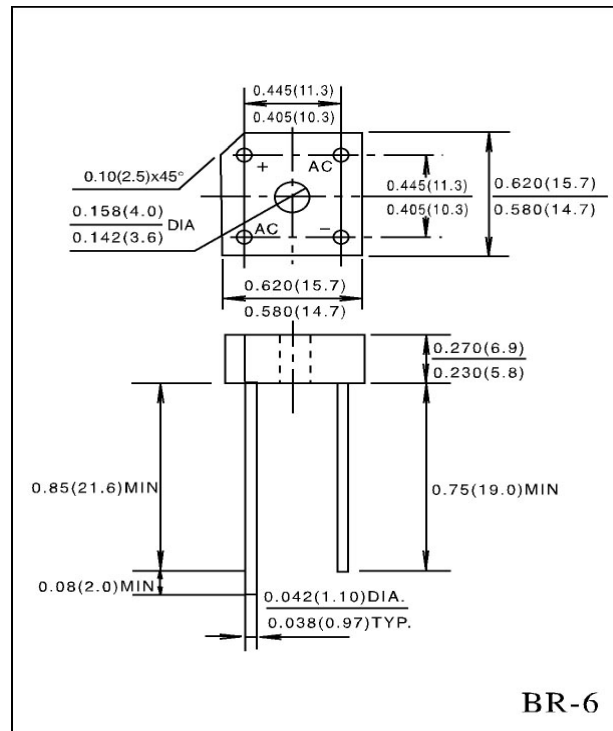


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT



**BR605 ~ BR610 / KBPC6005 ~ KBPC610**

Dimensions in inches (mm)

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