



# SINGLE-PHASE BRIDGE RECTIFIER KBPC50005~KBPC5010(MB5005~MB5010)

## Single-Phase Bridge Rectifier

### Features

- Low cost
- Integrally molded heatsink provide very low thermal resistance
- High isolation voltage from case to lugs
- High temperature soldering guaranteed:  
260°C/10 seconds, at 5 lbs. (2.3kg) tension
- RoHS and REACH Compliance



### Mechanical Data

<b>Case:</b>	Molded body
<b>Polarity</b>	Polarity symbols marked on case
<b>Terminals:</b>	Plated lead 0.25" (6.35mm) lug
<b>Mounting position:</b>	Thru hole for #10 screw, 20in, -lbs. Torque max
<b>Weight:</b>	0.84 ounce, 24 gram

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

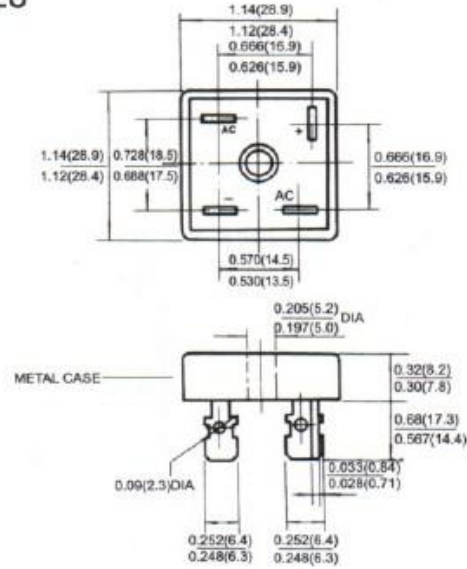
Symbol	Description	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	Unit	Conditions
<b>VRRM</b>	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Max RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I(AV)</b>	Max Average Forward Rectified Current	50							A	TC=50°C (Note1,2)
<b>IFSM</b>	Peak Forward Surge Current	400							A	JEDEC method
<b>TJ,TSTG</b>	Operating/Storage Temperature Range	-65 to +150, -65 to +150							°C	
<b>I2t</b>	Rating for Fusing	664							A2s	T<8.3mS

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

Symbol	Description	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	Unit	Conditions
<b>VF</b>	Max Instantaneous Forward Voltage	1.1							V	Drop per Bridge element 25A
<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	2.0							°C/W	Note 1,2
<b>VISO</b>	Isolation Voltage from case to leads	2500							VAC	

#### Note:

1. Unit mounted on 9" x 3.5" x 4.6" (23 X 9 X 11.8cm) Al. Plate
2. Bolt down on heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

**Dimensions in inches (mm)**
**28**

**MB-15N/25N/35N/40/50**
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