

# KBPC50005 THRU KBPC5010

#### SINGLE-PHASE BRIDGE RECTIFIER VOLTAGE RANGE 50 to 1000 Volts **CURRENT 50.0 Ampere**

## FEATURES

◆ High forward surge current capability

◆Integrally molded heatsink provide

very low thermal resistance

◆High isolation voltage from case to lugs

◆High temperature soldering guaranteed:

260°C/10 second, at 5 lbs. (2.3kg) tension

#### Mechanical Data

◆Case: Metal case

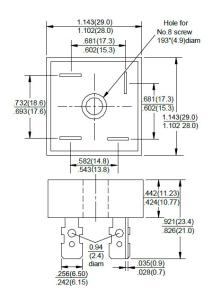
◆Terminal: Plated 0.25" (6.35mm) lug

◆Polarity: Polarity symbols marked on case

◆ Mounting: Thru hole for #8 screw, 20 in,- lbs.Torqute Max

◆Weight: 1.02 ounce, 29 gram

## **KBPC**



**Dimensions in inches and (millimeters)** 

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load derate current by 20%

		SYMBOL	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	UNIT
Maximum Repetitive Peak Reverse Voltage		$V_{\text{RRM}}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	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		$I_{(AV)}$	50							Amps
Rectified Output Current, at Tc=50°C (Note1,2)										
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	400							Amps
Rating for Fusing(t<8.3ms)		I <sup>2</sup> t	664							$A^2S$
Maximum Instantaneous Forward Voltage at 25A		$V_{\rm F}$	1.1							Volts
Maximum DC Reverse Current at	T <sub>A</sub> =25°C	т	5.0							μAmps
rated DC blocking voltage	T <sub>A</sub> =125℃	$ m I_R$	1.0							mAmps
Isolation Voltage from case to lugs		$V_{\rm ISO}$	2500							V <sub>AC</sub>
Typical Thermal Resistance (Note 1,2)		RөJC	2.0							°C/W
Operating Temperature Range		$T_{\rm J}$	-55 to +125							°C
Storage Temperature Range		Tstg	-55 to +150							°C

Note: 1. Unit mounted on 9"×3.5"×4.6"(23×9×11.8mm) Al. finned plate.

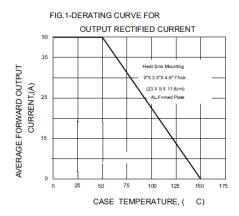
2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.



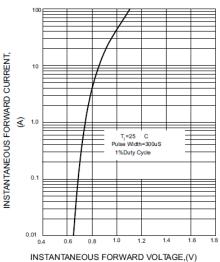
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### RATING AND CHARACTERISTIC CURVES KBPC50005 THRU KBPC5010







#### FIG.5-MAXIMUM POWER DISSIPATION

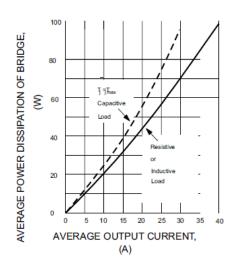
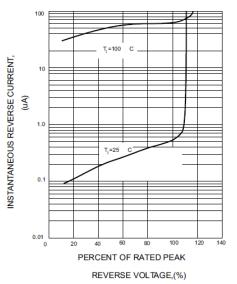


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

450
400
350
300
300
300
50
Single Half-Sine-Wave
(JEDEC METHOD)
1 2 5 10 20 50 100

NUMBER OF CYCLES AT 60 Hz

FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.