

# SINGLE-PHASE BRIDGE RECTIFIER KBPC15005N THRU KBPC1510N

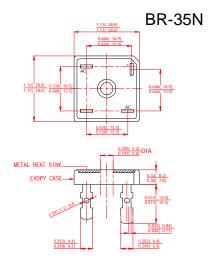
VOLTAGE RANGE CURRENT 50 to 1000 Volts 15 Amperes

### **FEATURES**

- I Low cost
- I This series is UL recognized under component index, file number E127707
- I High forward surge current capability
- I Integrally molded heatsink provide very low thermal resistance
- I High isolation voltage from case to lugs
- High temperature soldering guaranteed: 260 °C/10 second, at 5 lbs. (2.3kg) tension.

#### MECHANICAL DATA

- I Case: Molded plastic body
- I Terminal: Lead solderable per MIL-STD-202E method 208C.
- I Polarity: Polarity symbols molded on case
- I Mounting: Thru hole for #6 screw, 5.0 in.-lbs torque max.
- I Weight: 0. 20 ounce, 5.62 grams



Dimensions in inches and (millimeters)

### 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 15005N	KBPC 1501N	KBPC 1502N	KBPC 1504N	KBPC 1506N	KBPC 1508N	KBPC 1510N	UNITS
Maximum Repetitive Peak Reverse Voltage		$V_{\text{RRM}}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		$V_{\text{RMS}}$	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 <sub>C</sub> =55 °C (Note1, 2)		I <sub>(AV)</sub>	15							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		$I_{FSM}$	300							Amps
Rating for Fusing(t<8.3ms)		$I^2T$	373							$A^2S$
Maximum Instantaneous Forward Voltage at 7.5A		$V_{\rm F}$	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^{\circ}C$ $T_A=150^{\circ}C$	$I_R$				10				μAmps mAmps
Isolation Voltage from case to leads		V <sub>ISO</sub>	2500							V <sub>AC</sub>
Typical Thermal Resistance (Note 1)		$R_{\theta JC}$	2.0							°C/W
Operating Temperature Range		$T_J$	-55 to +150							$^{\circ}$
Storage Temperature Range		$T_{STG}$	-55 to +150							$^{\circ}\!\mathbb{C}$

#### NOTES:

- 1. Unit mounted on 5"×4"×3" thick (12.8mm×10.2mm×7.3mm) Al. plate.
- 2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

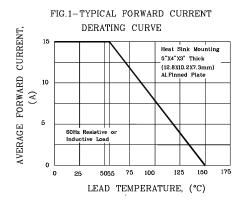
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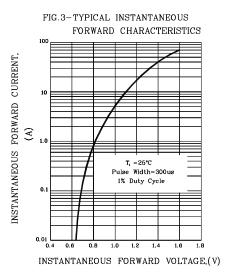


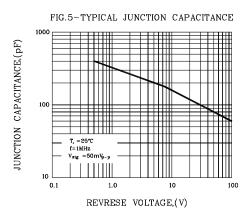
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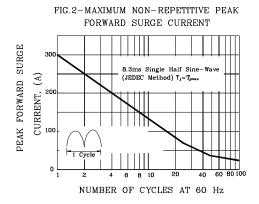
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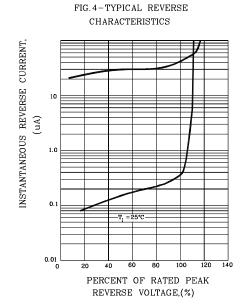
## RATINGS AND CHARACTERISTIC CURVES KBPC15005N THRU KBPC1510N











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