



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER
KBPC1505WN THRU KBPC1510WN

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 15 Amperes

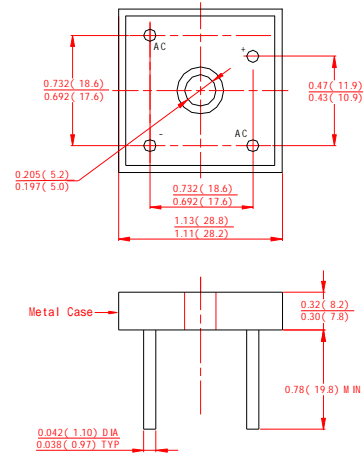
FEATURES

- 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
- I High temperature soldering guaranteed: 260°C/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- I Case: Molded metal 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: 0.47ounce, 13.4 grams

BR-35WN



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%.

Dimensions in inches and (millimeters)

| | SYMBOLS | KBPC 15005WN | KBPC 1501WN | KBPC 1502WN | KBPC 1504WN | KBPC 1506WN | KBPC 1508WN | KBPC 1510WN | UNITS | |
|--|-----------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------|------------------|
| 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 $T_C=55^\circ\text{C}$ (Note 1, 2) | $I_{(AV)}$ | 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 ($t < 8.3\text{ms}$) | I^2T | 373 | | | | | | | A^2S | |
| Maximum Instantaneous Forward Voltage at 7.5A | V_F | 1.1 | | | | | | | Volts | |
| Maximum DC Reverse Current at rated DC blocking voltage | I_R | $T_A=25^\circ\text{C}$ | 10 | | | | | | | μAmps |
| | | $T_A=150^\circ\text{C}$ | 1.0 | | | | | | | mAmps |
| Isolation Voltage from case to lug | V_{ISO} | 2500 | | | | | | | V_{AC} | |
| Typical Thermal Resistance (Note 1,2) | $R_{\theta JC}$ | 2.0 | | | | | | | $^\circ\text{C}/\text{W}$ | |
| 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 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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RATINGS AND CHARACTERISTIC CURVES KBPC1505WN THRU KBPC1510WN

