



GENERAL FEATURES:

- Ultra miniature package
- Input/output isolated
- Short circuit protection
- Line and load regulation
- Input and output filtering
- High efficiency and reliability
- Low cost
- Single and dual output available
- Custom design available

GENERAL DESCRIPTION

JBM's model D4 DC/DC converter is a 14-pin package power supply, capable of accepting inputs ranging from 5 volts to 24 volts. Outputs for this model typically range from 5 volts to 15 volts. The units are available in standard and custom configurations.

NOTES TO SCHEMATIC

White Dot Pin #1
 Leads: 0.020" Diameter Tinned Copper
 Case Material: Non-Conductive Black Plastic
 Marking: White Epoxy Ink
 Tolerance: .xx + / - 0.020"
 .xxx + / - 0.010"

WIRING DETAILS

Single Output

| Pin # | Connection |
|-------|---------------|
| 1 | - V in |
| 7 | No Connection |
| 8 | - V out |
| 9 | + V out |
| 14 | + V in |

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range: -25 to +71 degrees C
 Storage Temperature Range: -55 to +130 degrees C
 Temperature Coefficient: + / - 0.05% per degree C
 Derating: None
 Cooling: Free Air Convection
 Humidity (Non-Condensing): 20% to 95% RH

ELECTRICAL SPECIFICATIONS

Efficiency (at Full Load): 70%
 Isolation Voltage: 500 VDC Min
 Isolation Resistance: 1000 M ohms
 Switching Frequency: 25 KHz Min.
 Burn-In @ Full Load: 100%/ 4 Hrs @ 50 degrees C.

INPUT SPECIFICATIONS

Input Voltage: See Table of Values
 Input Filter: Capacitor Type

OUTPUT SPECIFICATIONS

Output Voltage / Accuracy: See Table of Values
 Output Current: See Table of Values
 Ripple and Noise (20 MHz BW): 50 MV P-P Max.
 Line Regulation*: 1.2% Max.
 Load Regulation**: 8.0% Max.
 Voltage Stability (24 Hour): + / - 0.05% Max.
 Short Circuit Protection: 10 Seconds Max.

* Line Regulation is per 1.0% Change in Input Voltage
 ** Load Regulation is for Load Change from 20% to 100%

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| UNREGULATED POWER SUPPLIES JBM PART NO. | INPUT V _{dc} | OUTPUT V _{dc} | OUTPUT CURRENT (mA) | EFFICIENCY AT FULL LOAD % | REGULATION LINE % | LOAD % | O/P NOISE mVp-p |
|---|--------------------------|---------------------------|---------------------------|---------------------------------|-------------------------|-----------|-----------------------|
| DC01-0505-D4 | 5.0 | 5.0 | 150 | 70 | 1.2 | 8 | 75 |
| DC01-0509-D4 | 5.0 | 9.0 | 100 | 70 | 1.2 | 8 | 50 |
| DC01-0512-D4 | 5.0 | 12.0 | 85 | 70 | 1.2 | 8 | 50 |
| DC01-0515-D4 | 5.0 | 15.0 | 65 | 70 | 1.2 | 8 | 50 |
| DC01-1205-D4 | 12.0 | 5.0 | 150 | 70 | 1.2 | 8 | 50 |
| DC01-1212-D4 | 12.0 | 12.0 | 85 | 70 | 1.2 | 8 | 50 |
| DC01-1215-D4 | 12.0 | 15.0 | 65 | 70 | 1.2 | 8 | 50 |

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