



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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<http://www.bobbintron.com>

**BOBBINTRON ELECTRICAL CORPORATION**

## SPECIFICATION FOR REFERENCE

<b>REFERENCE SIGNATURE</b>
<b>DATE :</b>

**CUSTOMER :** DIGI **PART NO :** \_\_\_\_\_

**DESCRIPTION :** DC to DC 12Watt Converter

**PLEASE SIGN AND RETURN ONE COPY.**

**ALL PRODUCTION UNITS WILL BE BUILT ACCORDING TO THIS SPECIFICATIONS.**

**MODEL NO:** EDD0121-12 **Rev. A**

**AGENCY APPROVAL:** UL/cUL

**PRESENTED BY:** JACKY CHANG

**CHECKED BY:** JOHNSON LIN

**APPROVED BY:** MICHAEL CHEN

**DATE : 1/27/2006**

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**BOBBINTRON ELECTRICAL CORPORATION  
SWITCHING POWER SUPPLY  
SPECIFICATION**

**MODEL: EDD0121-12 Rev. A****ISSUED : 1/27/2006****1. Input**

- 1.1 DC input voltage range : -36V ~ -72V**
- 1.2 DC input voltage rating : -48V**
- 1.3 DC input current : 0.5A max at -48VDC**

**2. Output characteristics:**

- 2.1 Output voltage : +12V**
- 2.2 Max. load current : 1A; 2A peak for 200mS**
- 2.3 Min load current : 0A**
- 2.4 Tolerance : ± 5 %**
- 2.5 Output Ripple & Noise : Output Voltage 1%**

**\* Ripple & Noise test conditions :**

- (1) Measured by-pass capacitors 0.1uF / 10uF at output connector terminal  
And oscilloscope set at 20 MHz. ( tested by oscilloscope )**

**3. General characteristics :**

- 3.1 Max. output power : 12 watts continuous.**
- 3.2 Efficiency : 70% ( Minimum ) at Maximum load at -48VDC.**
- 3.3 Turn no delay : 2 second max. at -48VDC**

**3.4 Transient response :** output return within  $\pm 10\%$  tolerance of nominal voltage within 1m sec.  
for 50% load change, 120Hz 50% duty cycle.

**3.5 Over voltage protection :** 15V reference with output Zener Diode.

**3.6 Short circuit protection :** protection against short circuit for output

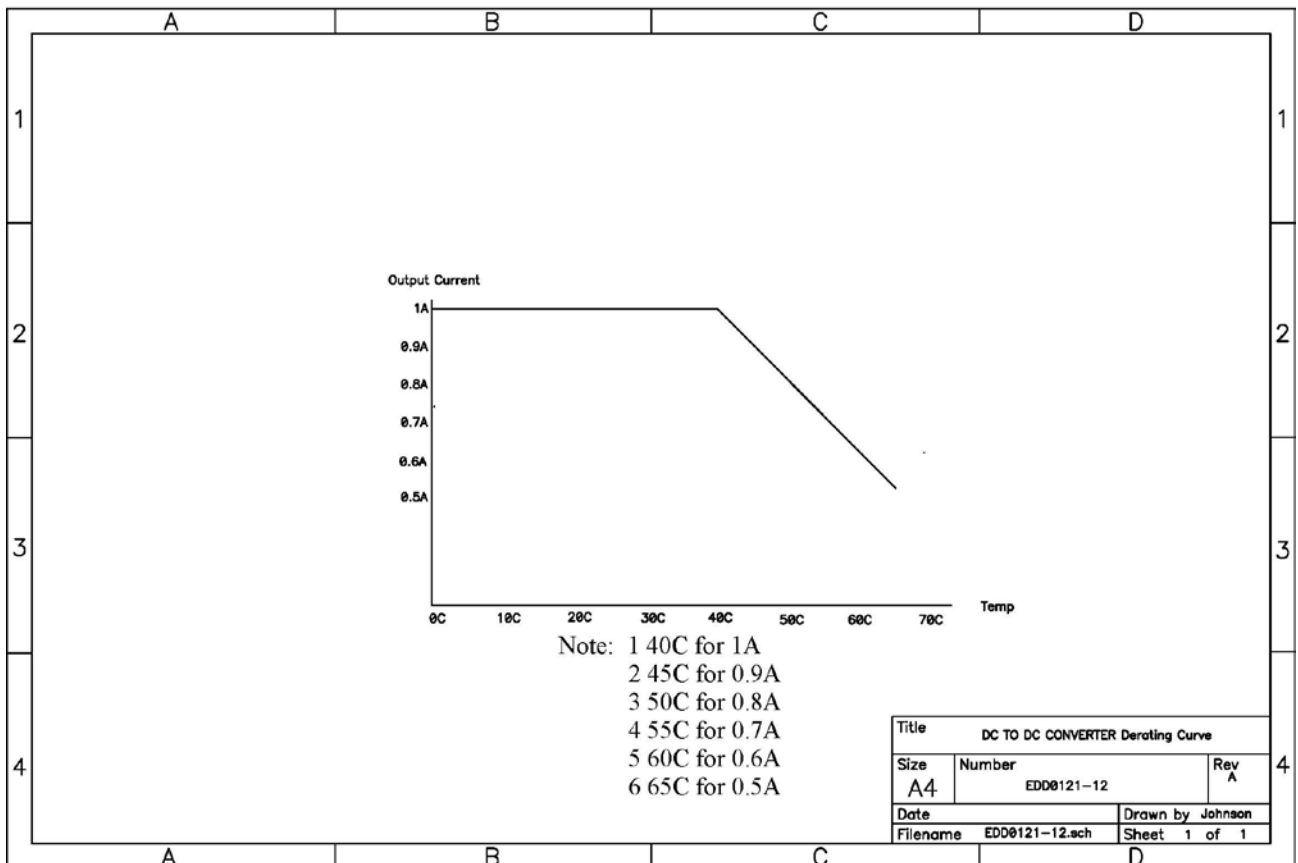
**3.6.1 (1) Any protect condition shall cause no damage and no component fail.  
(2) Automatic recovery when removal of protect condition.**

**3.7 Temperature coefficient :** 0.2% per  $^{\circ}\text{C}$  maximum over entire operating temperature range

**4. Environmental :**

**4.1 Operating temperature :**  $0^{\circ}\text{C}$  to  $40^{\circ}\text{C}$

**4.1.1 Derating Curve**



**4.2 Storage temperature : -20°C to 80°C**

**4.3 Operating relative humidity : 10% to 85%**

**4.4 Storage relative humidity : 5% to 95%**

**5. Safety requirement :(Meet) (1) UL 60950  
(2) cUL / CSA 22.2, NO. 60950**

**6. EMI requirement : CISPR EN55022 class B rules.**

**7. Hi-pot test :**

**7.1 Primary to secondary : 2121VDC or 1500VAC for 1 sec. 10mA**

**9. Reliability**

**9.1 MTBF : 100K hours min.  
@ full load at 25°C ambient temperature.**

**9.2 Vibration : Frequency range : 5-200Hz.**

**Vibration amplitude 0.5g ±10% over entire frequency range.**

**A complete sweep of the frequencies from 5-200Hz at 0.4 decades per mins. duration, if insufficient resonant point are established to provide for 30 minutes input per axis, then a constant acceleration continuous sweep at one octave per minute ( 0.3 decade / min. ) shall be applied for the duration.**

**9.3 Altitude : will operate properly at any  
altitude between 0 to 10000ft.**

**10. Mechanical :**

**10.1 Dimensions(Ref.) :**               **74 mm long**  
   **49 mm width**  
   **40.5 mm height**

**10.2 Weight (Ref.) :**                   **TBA**

**10.3 Input connector :**               **Molex 39-01-3028 5557 series or equivalent**

**10.3.1 Pin Out configuration :   Location : 1. RTN**  
   **2. -48V**

**10.5 Output connector :**           **Shogyo MP-121AR or equivalent**

**10.5.1 Pin Out configuration : Center positive**

