

FEATURES:

- 3 Watt SIP Package
- Efficiency to 86%
- 100% Burned In
- No-Load Input Current as Low as 8mA
- UL 94V-0 Package Material
- Custom Solutions Available
- Unregulated Output Types



**3 Watt DC-DC Converter
EC4-24D103P**

**3 Watt Dual O/P
Isolated DC/DC Converter**

Input Specifications

Input Voltage:	24Vdc
Input Voltage Range:	±10%

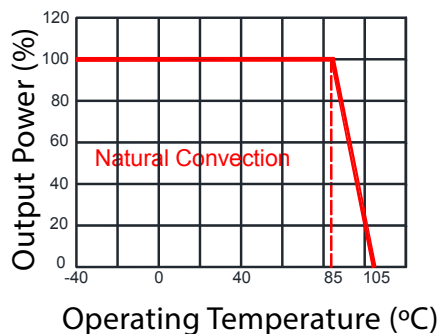
Output Specifications

Output Voltage:	±10Vdc	
Output Voltage Accuracy:	±5%	@Vout= ±9.5~±10.5Vdc@Vin=24Vdc
Output Current:	±150mA	
Efficiency:	86% TYP	
Ripple / Noise:	100mVp-p TYP, 150mVp-p MAX	@20MHz bandwidth
Short Circuit Protection:	Continuous	
Line Regulation:	±1.2% TYP	@For 1.0% OF Vin
Load Regulation:	±10% TYP	@10% to 100% full load
Capacitive Load:	±100uF MAX	

General Specifications

Operating Temperature Range:	-40°C ~ +85°C	
Storage Temperature:	-55°C ~ +125°C	
Switching Frequency:	250KHz TYP	
Humidity:	95% MAX	
Isolation Voltage:	1500Vdc	@Input to Output (60 sec/ 0.5mA)
Isolation Resistance:	1000MΩ MIN	@ 500Vdc
Cooling:	Free air convection	
MTBF:	>3,500,000 Hours	MIL-HDBK-217F@25°C, Ground Benign
Case Material:	DAP	
Weight:	2.7g TYP	
EMI	CE	CISPR32/EN55032 CLASS B (see Fig.1 for recommended circuit)
	RE	CISPR32/EN55032 CLASS B (see Fig.1 for recommended circuit)
EMS	ESD	IEC/EN61000-4-2 Air ±8kV, Contact ±4kV perf. Criteria B

Temperature Derating Graph

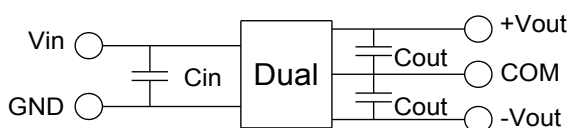


Part Number

$$\frac{EC4}{A} - \frac{24}{B} \frac{D}{C} \frac{10}{D} \frac{3}{E} \frac{P}{F}$$

A: Series
B: Input Voltage
C: Dual Output (D)
D: Output Voltage
E: Output Power
F: Protection (P)

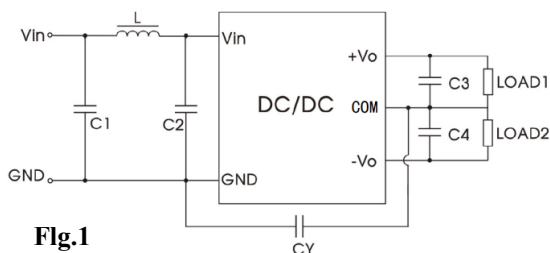
Recommended Test Circuit



Vin	Cin	Single Vout	Cout
24Vdc	1μF/50V	±10Vdc	±1μF/25V

To make sure the product works at perfect operation status, a full loading external capacitor is necessary and it is recommended to use a high frequency low resistance electrolytic capacitor.

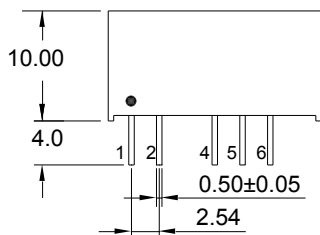
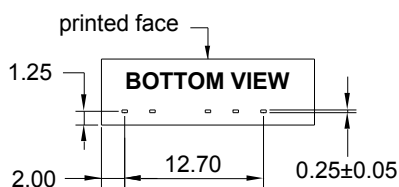
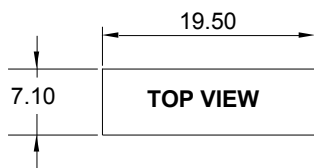
EMC (CLASS B) Compliance Circuit



EMC Recommended Circuit Value Table

EMI	C1	10μF /50V
	C2	10μF /50V
	CY	1nF/4kV
	C3, C4	Recommended Test Circuit
	L	6.8μH

Outline Dimensions



Pin	1	2	4	5	6
Dual	+Vin	-Vin	-Vout	COM	+Vout

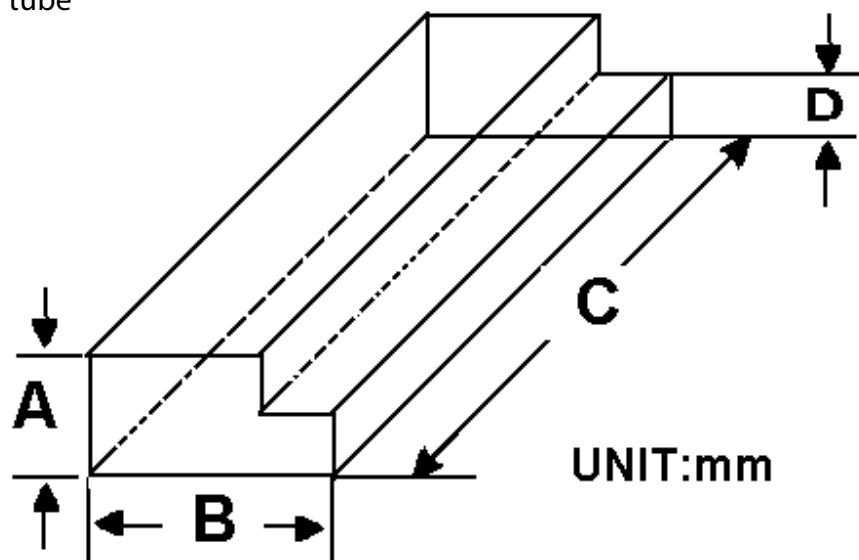
UNIT: mm unless otherwise specified, all tolerances are ±0.25

Packaging Information

Weight: 2.7 grams/pcs

TUBE: 25 pcs

Weight: 80g per tube



Size (mm)			
A	B	C	D
9.50	16.50	522	5.00

Outer carton unit: 2500pcs/100Tubes/box

Weight: 8.5 kg per carton

