

**FEATURES:**

- 1 Watt SIP Package
- Efficiency to 67%
- 100% Burned In
- No-Load Input Current as Low as 5mA
- UL 94V-0 Package Material
- Custom Solutions Available
- Regulated Output Types
- UL Recognized
- RoHS Compliant



**1 Watt DC-DC Converter**  
**EC4-05S03RP**

**1 Watt Single O/P**  
**Isolated DC/DC Converter**



**Input Specifications**

Input Voltage:	5Vdc
Input Voltage Range:	±5%

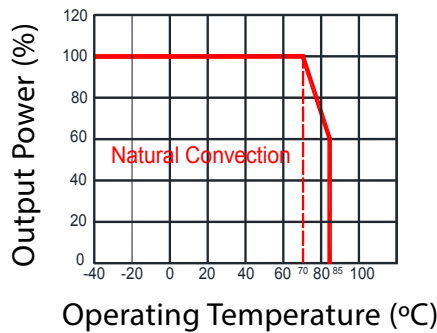
**Output Specifications**

Output Voltage:	3.3Vdc
Output Voltage Accuracy:	±3% @Vout=3.201~3.399 Vdc@Vin=5Vdc
Output Current:	250mA
Efficiency:	67% TYP
Ripple / Noise:	30mVp-p TYP, 75mVp-p MAX @20MHz bandwidth
Short Circuit Protection:	Continuous
Line Regulation:	±0.25% TYP @For 1.0% OF Vin
Load Regulation:	±3% MAX @10% to 100% full load
Capacitive Load:	2400uF MAX

**General Specifications**

Operating Temperature Range:	-40°C ~ +85°C	
Storage Temperature:	-55°C ~ +125°C	
Switching Frequency:	370 or 215KHz 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:	2.1g 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

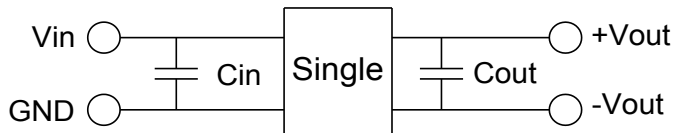


## Part Number

EC4 - 05 S 03 R P  
A B C D E F

A: Series  
B: Input Voltage  
C: Single Output (S)  
D: Output Voltage  
E: Regulated (R)  
F: Protection (P)

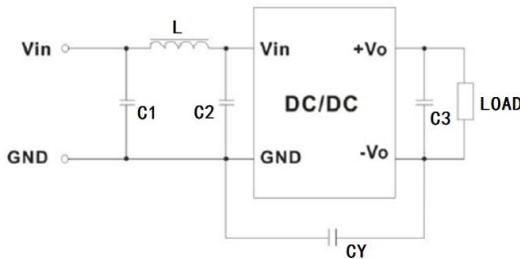
## Recommended Test Circuit



Pin	Value
1	5Vdc
2	4.7μF/25V
4	3.3Vdc
6	10μF/16V

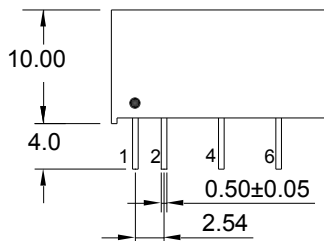
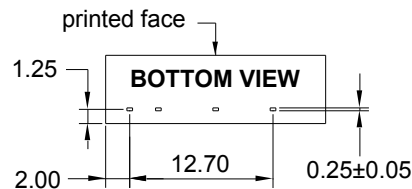
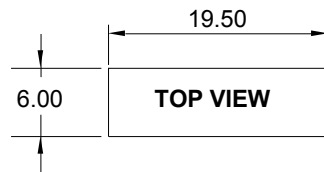
To make sure the product works at perfect operation status, a full loading external capacitor is necessary and it is recommended to use a high frequency low resistance electrolytic capacitor.

## EMC (CLASS B) Compliance Circuit



EMC Recommended Circuit Value Table		
EMI	C1	4.7μF /50V
	C2	4.7μF /50V
	CY	1nF/4kV
	C3	Recommended Test Circuit
	L	6.8μH

## Outline Dimensions

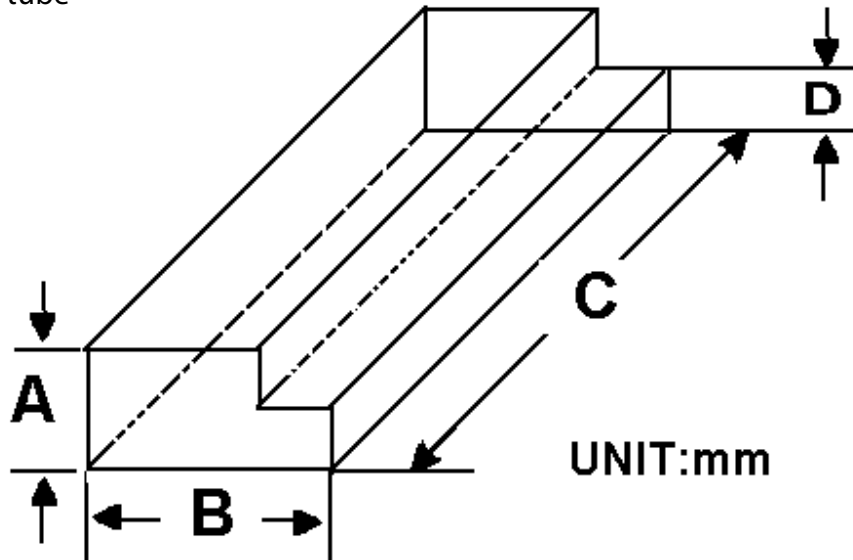


Pin	1	2	4	6
Single	+Vin	-Vin	-Vout	+Vout

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

**Packaging Information**

Weight: 2.1 grams/pcs  
 TUBE: 25 pcs  
 Weight: 73g per tube



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

Outer carton unit: 2500pcs/100Tubes/box  
 Weight: 7.5 kg per carton

