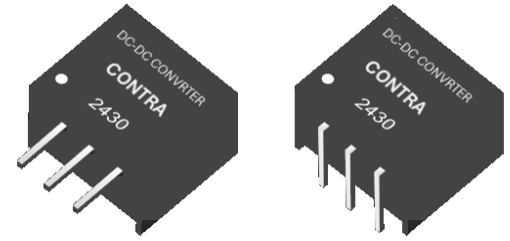


C01DC-1A SERIES Non-Isolated DC-DC Converter Single Output



FEATURES :

- 3PIN SIP Package
- Pin-out compatible with LM78XX Linear
- Efficiency up to 95%, Non isolated, no need for heatsinks
- UL94V-0 package material
- Operating temperature from -40°C to +85°C
- No-load input current as low as 0.3mA
- Short circuit protection



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified



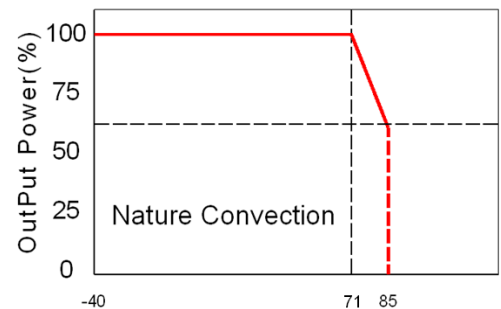
Part Number	Input Range	Output Voltage	Output Current	Efficiency (%)		Capacitive Load
	Vdc	Vdc	mA	Min. Vin	Max. Vin	μF max
C01DC-1R2-1A(L)	4.75-36	1.2	1000	74	62	680
C01DC-1R5-1A(L)	4.75-36	1.5	1000	78	65	680
C01DC-1R8-1A(L)	4.75-36	1.8	1000	82	69	680
C01DC-2R5-1A(L)	4.75-36	2.5	1000	87	75	680
C01DC-3R3-1A(L)	4.75-36	3.3	1000	90	78	680
C01DC-05-1A(L)	6.5-36	5.0	1000	92	84	680
	6.5-27	-5.0	-500	85	81	330
C01DC-6R5-1A(L)	9.0-36	6.5	1000	93	86	680
C01DC-09-1A(L)	12-36	9.0	1000	95	90	680
C01DC-12-1A(L)	15-36	12	1000	95	92	470
	8-20	-12	-300	88	87	330
C01DC-15-1A(L)	18-36	15	1000	95	93	470
	8-18	-15	-300	87	88	330

Note: (L) Add a suffix to bend the feet 90°C , e.g,C01DC-05-1AL

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance			2	±3	%
Short Circuit Protection	Continuous, automatic recovery				
Line Regulation	1.2V to 1.5V			0.3	%
Line Regulation	1.8V to 15V			0.3	%
Load Regulation	1.2V to 1.5V (10% To 100% F.L)			0.6	%
Load Regulation	1.8 V to 15V (10% To 100% F.L.)		0.4	0.6	%
Ripple & Noise (without Output Capacitor)	1.2V to 6.5V (BW=DC To 20MHz)			75	mVp-p
	9V to 15V (BW=DC To 20MHz)			100	mVp-p
Transient response setting time	50% load step change		250		us

Temperature Derating Graph



C01DC-1A SERIES Non-Isolated DC-DC Converter Single Output



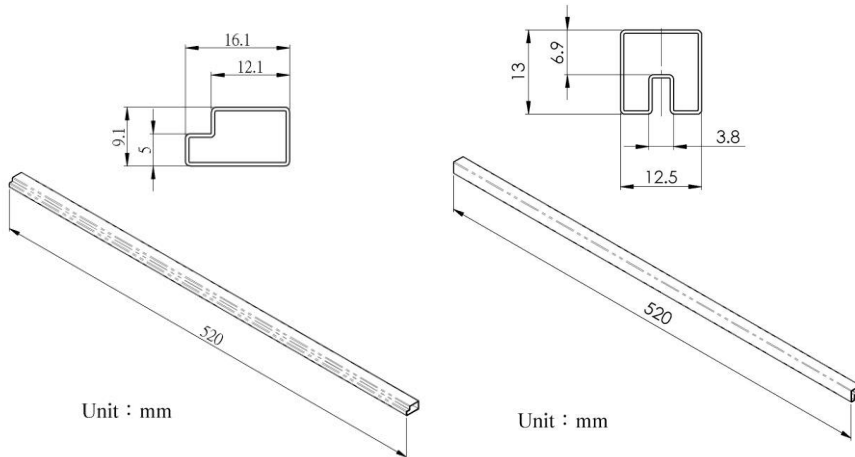
Electromagnetic Compatibility (EMC)

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	Contact $\pm 4\text{kV}$	perf. Criteria B
	RS	IEC/EN 61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN 61000-4-4	$\pm 1\text{kV}$	perf. Criteria B
	Surge	IEC/EN 61000-4-5	line to line $\pm 1\text{kV}$	perf. Criteria B
	CS	IEC/EN 61000-4-6	3Vr.m.s	perf. Criteria A

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency			440		KHz
Operating Temperature		-40		85	°C
Storage Temperature		-55		125	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Non-Conductive Black Plastic				
Weight			2.0		g
Dimensions			11.6x7.6x10.4		mm
MTBF(+25°C)	using MIL-HDBK 217F		5000x10 ³		hours
MTBF(+71°C)	using MIL-HDBK 217F		1000x10 ³		hours

Packing Formation



Weight	:	2.0 grams/pcs
Tube	:	43 pcs

Part Number

C01DC	-	05	-	1A
A		B		C

A: Series

B: Output Voltage

C: Output Current

EMC (CLASS B) Compliance Circuit

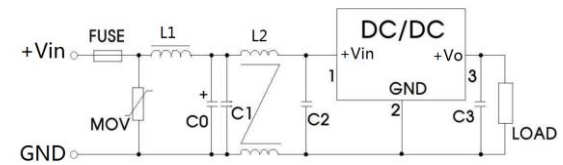
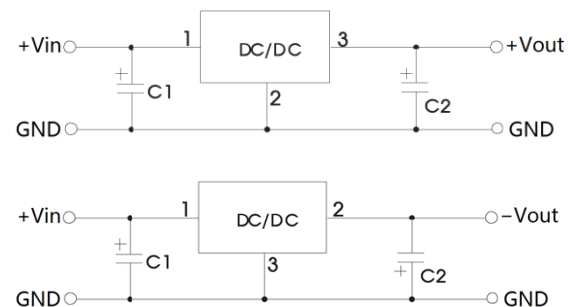


Fig.1

FUSE	Select fuse value according to actual input current
MOV	S20K30
L1	82μH
C0	680μF /50V
L2	4.7mH
C1, C3, C4	4.7μF /50V
C2	10μF /50V

Recommended Test Circuit

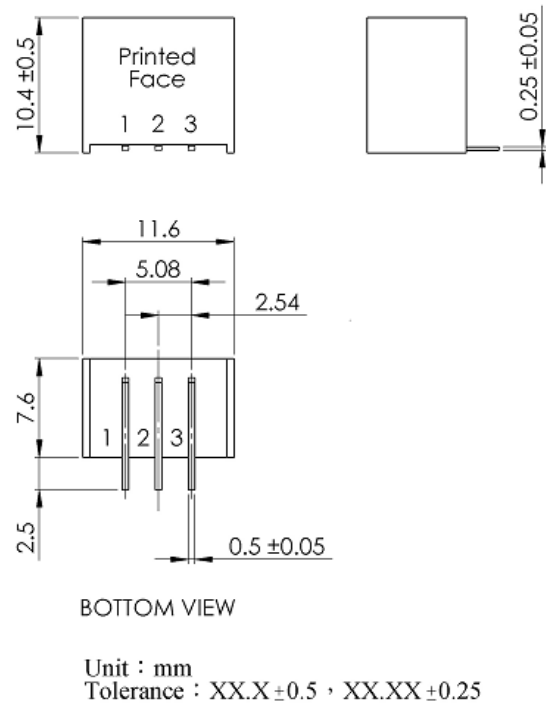
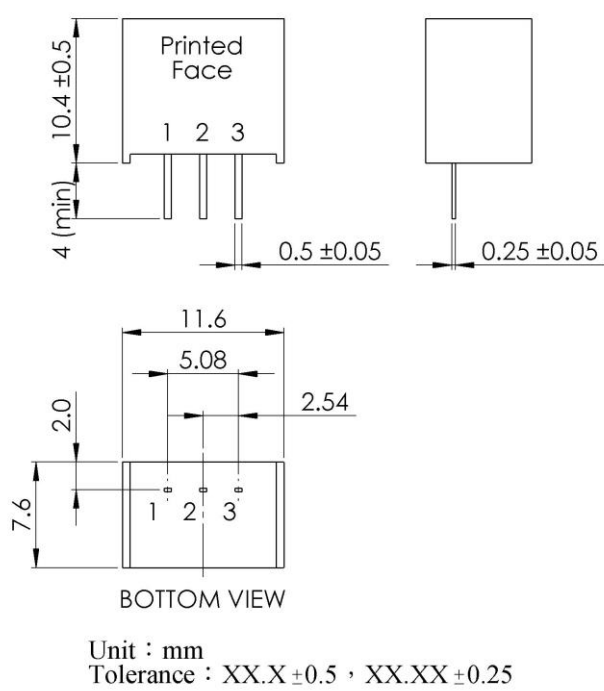


Vout	C1	C2
1.2	10μF/50V	22μF/10V
1.5		22μF/10V
1.8		22μF/10V
2.5		22μF/10V
3.3		22μF/10V
5		22μF/10V
6.5		22μF/16V
9		22μF/16V
12		22μF/25V
15		22μF/25V

C01DC-1A SERIES Non-Isolated
DC-DC Converter Single Output



Markings and Dimensions



PIN Connection

PIN	1	2	3
SINGLE	+ Vin	GND	+Vout