

FEATURES :

- 10 Watt Package
- 2:1Wide Input Voltage
- 100% Burned In
- High Efficiency To 86%
- Customized Solutions Available
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +87°C
- 3 Years Warranty

YUAN DEAN SCIENTIFIC



DC-DC Converter

61D SERIES

10Watt 1.5KV Isolated

2 : 1 Input Voltage Range

Single & Dual Output

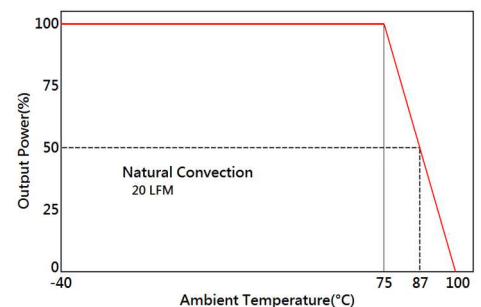
2" x 1"



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

Part Number	Input Voltage	Input Current		Output Voltage	Output Current	Efficiency	Capacitor Load
	Vdc	No-Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	%TYP	uF TYP
61D-12S03RNL	9-18	30	705	3.3	2000	78	2200
61D-12S05RNL	9-18	30	1016	5	2000	82	2200
61D-12S09RNL	9-18	30	1004	9	1111	83	1000
61D-12S12RNL	9-18	30	992	12	833	84	680
61D-12S15RNL	9-18	30	992	15	666	84	470
61D-12S18RNL	9-18	30	980	18	555	85	470
61D-12S24RNL	9-18	30	980	24	416	85	330
61D-12D05RNL	9-18	30	1016	±5	±1000	82	±1000
61D-12D09RNL	9-18	30	992	±9	±555	84	±470
61D-12D12RNL	9-18	30	992	±12	±416	84	±470
61D-12D15RNL	9-18	30	980	±15	±333	85	±330
61D-12D18RNL	9-18	30	980	±18	±277	85	±220
61D-12D24RNL	9-18	30	980	±24	±208	85	±220
61D-24S03RNL	18-36	25	352	3.3	2000	78	2200
61D-24S05RNL	18-36	25	508	5	2000	82	2200
61D-24S09RNL	18-36	25	496	9	1111	84	1000
61D-24S12RNL	18-36	25	496	12	833	84	680
61D-24S15RNL	18-36	25	490	15	666	85	470
61D-24S18RNL	18-36	25	490	18	555	85	470
61D-24S24RNL	18-36	25	484	24	416	86	330
61D-24D05RNL	18-36	25	508	±5	±1000	82	±1000
61D-24D09RNL	18-36	25	502	±9	±555	83	±470
61D-24D12RNL	18-36	25	496	±12	±416	84	±470
61D-24D15RNL	18-36	25	496	±15	±333	84	±330
61D-24D18RNL	18-36	25	490	±18	±277	85	±220
61D-24D24RNL	18-36	25	490	±24	±208	85	±220

Temperature Derating Graph



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Rev:o 2018/10/31

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

Part Number	Input Voltage	Input Current		Output Voltage	Output Current	Efficiency	Capacitor Load
	Vdc	No-Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	%TYP	uF TYP
61D-48S03RNL	36-72	20	176	3.3	2000	78	2200
61D-48S05RNL	36-72	20	251	5	2000	83	2200
61D-48S09RNL	36-72	20	248	9	1111	84	1000
61D-48S12RNL	36-72	20	248	12	833	84	680
61D-48S15RNL	36-72	20	248	15	666	84	470
61D-48S18RNL	36-72	20	245	18	555	85	470
61D-48S24RNL	36-72	20	245	24	416	86	330
61D-48D05RNL	36-72	20	254	±5	±1000	82	±1000
61D-48D09RNL	36-72	20	248	±9	±555	84	±470
61D-48D12RNL	36-72	20	245	±12	±416	85	±470
61D-48D15RNL	36-72	20	245	±15	±333	85	±330
61D-48D18RNL	36-72	20	242	±18	±277	86	±220
61D-48D24RNL	36-72	20	242	±24	±208	86	±220

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Pi TYPE				

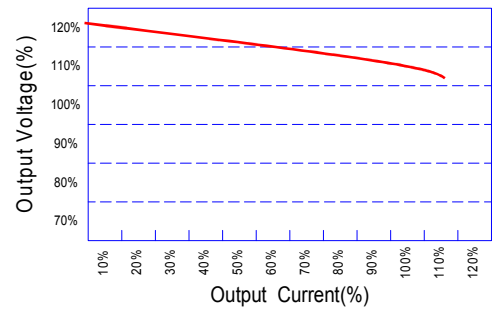
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Full load@Vin(nom.)			±2	%
Short Circuit Protection	Hiccup, automatic recovery				
Line Regulation				±0.5	%
Load Regulation	Single (25% to 100%)			±0.5	%
Load Regulation	Dual (25% to 100%,Balance Load)			±2.0	%
Cross Regulation	DUAL (25% to 100%)			±5.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	25% load step change		350		us

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			300		KHz
Operating Temperature	With derating	-40		87	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated With Non-Conductive Base				
Weight			36.5		g
Dimensions			50.8x25.4x10.6		mm
Potting Material			Epoxy (UL94V-0 rated)		

Tolerance Envelope Graph

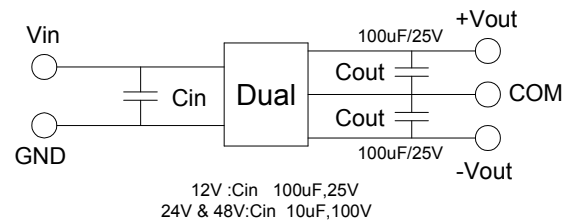
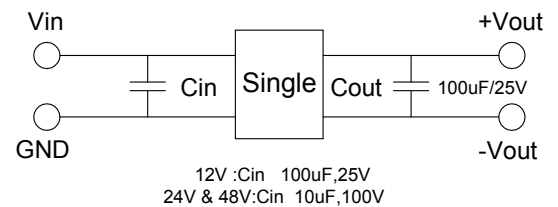


Part Number

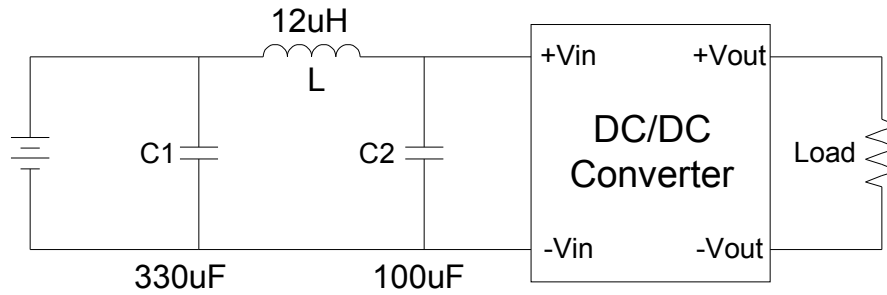
61D - 12 S 05 R NL
A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Regulated(R)
- F:RoHS Version

Recommended Test Circuit

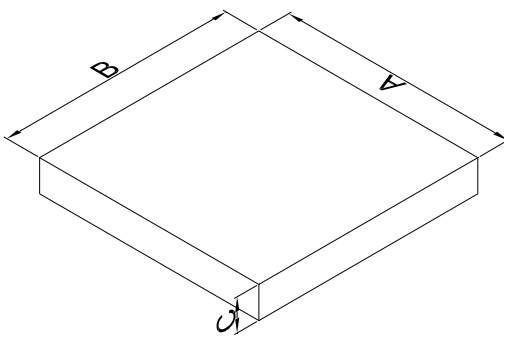
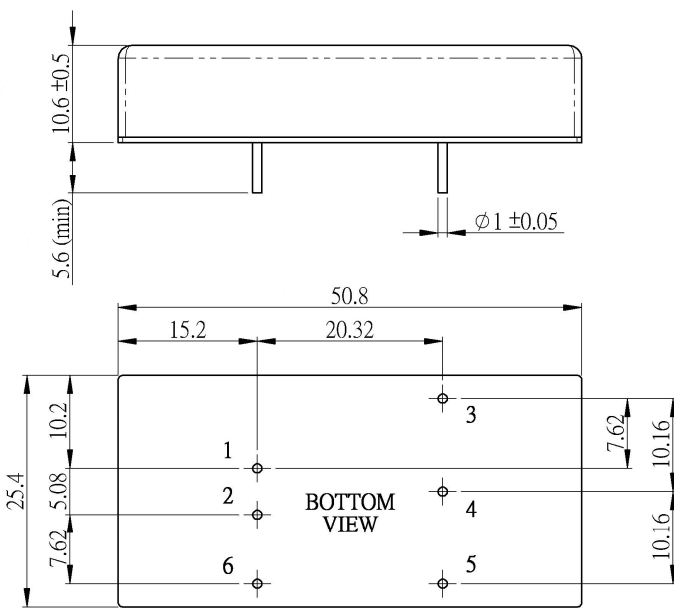


Suggest adding input external filter(C1,C2,L)to meet conducted emissions(EN55022 class A)



Dimensions

Packaging



Size(mm)		
A	B	C
210.00	210.00	30.00

Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN Connection

Pin	1	2	3	4	5	6
Single	+Vin	-Vin	+Vout	NO PIN	-Vout	NO PIN
Dual	+Vin	-Vin	+Vout	COM	-Vout	NO PIN

