

**FEATURES :**

- 10 Watt Package
- 2:1 Wide Input Voltage
- 100% Burned In
- High Efficiency to 82%
- Customized Solutions Available
- UL94V-0 Package Material
- Operating Temperature:-40°C to +87°C
- 3 Years Warranty

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

Part Number	Input Voltage		Input Current (mA TYP)		Output Voltage	Output Current	Efficiency	Capacitor Load
	Vdc	No-Load	Full Load	Vdc	Full Load (mA)	%TYP	uF TYP	
61D-12S03BNL	9-18	30	733	3.3	2000	75	2200	
61D-12S05BNL	9-18	30	1054	5	2000	79	2200	
61D-12S12BNL	9-18	30	1041	12	833	80	1000	
61D-12S15BNL	9-18	30	1027	15	666	81	470	
61D-12S24BNL	9-18	30	1014	24	416	82	330	
61D-12D05BNL	9-18	30	1054	±5	±1000	79	±1000	
61D-12D12BNL	9-18	30	1027	±12	±416	81	±470	
61D-12D15BNL	9-18	30	1014	±15	±333	82	±330	
61D-12D24BNL	9-18	30	1014	±24	±208	82	±220	
61D-24S03BNL	18-36	25	366	3.3	2000	75	2200	
61D-24S05BNL	18-36	25	527	5	2000	79	2200	
61D-24S12BNL	18-36	25	514	12	833	81	680	
61D-24S15BNL	18-36	25	507	15	666	82	470	
61D-24S24BNL	18-36	25	507	24	416	82	470	
61D-24D05BNL	18-36	25	527	±5	±1000	79	±1000	
61D-24D12BNL	18-36	25	514	±12	±416	81	±470	
61D-24D15BNL	18-36	25	514	±15	±333	81	±330	
61D-24D24BNL	18-36	25	507	±24	±208	82	±220	
61D-48S03BNL	36-72	20	183	3.3	2000	75	2200	
61D-48S05BNL	36-72	20	263	5	2000	79	2200	
61D-48S12BNL	36-72	20	257	12	833	81	680	
61D-48S15BNL	36-72	20	257	15	666	81	470	
61D-48S24BNL	36-72	20	253	24	416	82	330	
61D-48D05BNL	36-72	20	263	±5	±1000	79	±1000	
61D-48D12BNL	36-72	20	253	±12	±416	82	±470	
61D-48D15BNL	36-72	20	253	±15	±333	82	±330	
61D-48D24BNL	36-72	20	253	±24	±208	82	±220	

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DC-DC Converter

61D-BNL SERIES

10Watt 1.5KV Isolated

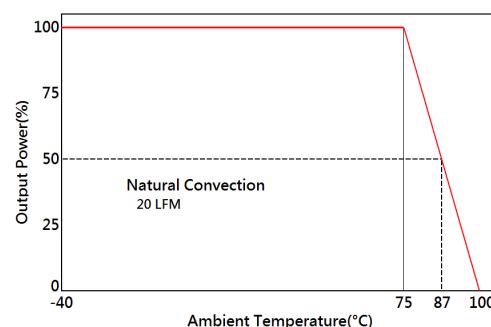
2 : 1 Input Voltage Range

Single & Dual Output

2" x 1"



Temperature Derating Graph



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Rev:0 2018/10/31

**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				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	Single (25% to 100%)			±0.5	%
Load Regulation	Dual			±2.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	25% load step change		350		us

**General Specifications**

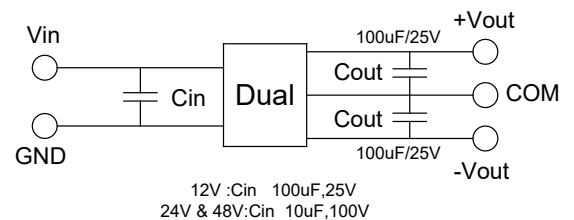
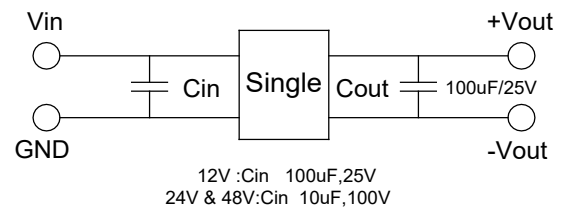
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			200		KHz
Operating Temperature		-40		87	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	Copper				
Weight			36.5		g
Dimensions			51.0x25.4x11.5		mm
Potting Material	Silicone (UL94V-0 rated)				
Radiated Emissions	EN55022		CLASS A		
	FCC 47 CFR Part 15 subpart A		CLASS A		

**Part Number**

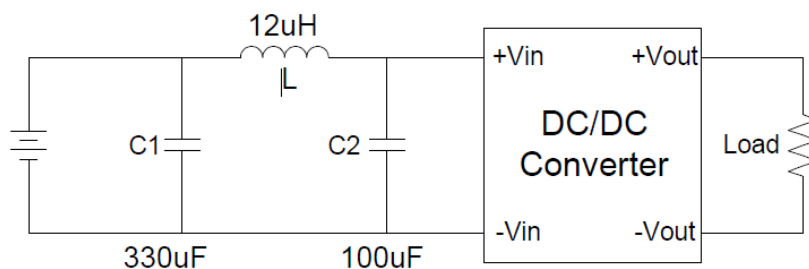
61D - 48 S 05 B NL  
A B C D E F

- A: Series
- B: Input Voltage
- C: Single (S) / Dual (D)
- D: Output Voltage
- E: Version
- F: RoHs Version

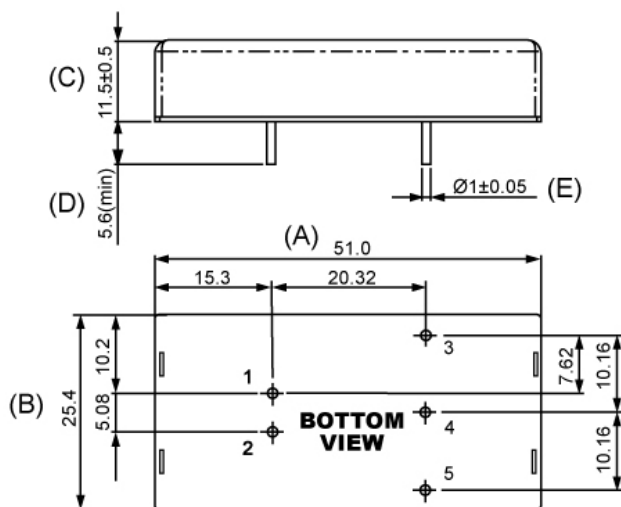
**Recommended Test Circuit**



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



Dimensions



UNIT : mm

Tolerances : XX.X  $\pm$  0.5, XX.XX  $\pm$  0.25

PIN Connection

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