

FEATURES :

- 30 Watt DIL Package
- 2:1Wide Input Voltage
- 100% Burned In
- High Efficiency to 85%
- 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
	Vdc	No Load	Full Load	Vdc	Full Load (mA)	%TYP
96D-12S03RNL	9-18	30	2179	3.3	6500	82
96D-12S05RNL	9-18	30	3012	5	6000	83
96D-12S12RNL	9-18	30	2941	12	2500	85
96D-12S15RNL	9-18	30	2941	15	2000	85
96D-24S03RNL	18-36	25	1089	3.3	6500	82
96D-24S05RNL	18-36	25	1506	5	6000	83
96D-24S12RNL	18-36	25	1470	12	2500	85
96D-24S15RNL	18-36	25	1470	15	2000	85
96D-48S03RNL	36-72	20	544	3.3	6500	82
96D-48S05RNL	36-72	20	753	5	6000	83
96D-48S12RNL	36-72	20	735	12	2500	85
96D-48S15RNL	36-72	20	735	15	2000	85
96D-12D05RNL	9-18	30	3048	±5	±3000	83
96D-12D12RNL	9-18	30	2941	±12	±1250	85
96D-12D15RNL	9-18	30	2941	±15	±1000	85
96D-24D05RNL	18-36	25	1506	±5	±3000	83
96D-24D12RNL	18-36	25	1470	±12	±1250	85
96D-24D15RNL	18-36	25	1470	±15	±1000	85
96D-48D05RNL	36-72	20	753	±5	±3000	83
96D-48D12RNL	36-72	20	735	±12	±1250	85
96D-48D15RNL	36-72	20	735	±15	±1000	85

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Pi Network				
Protection	Fuse Recommended				

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DC-DC Converter

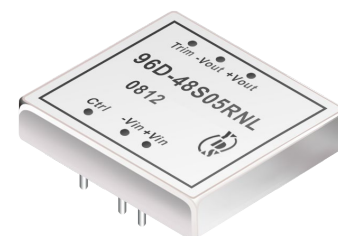
96D SERIES

30Watt 3KV Isolated

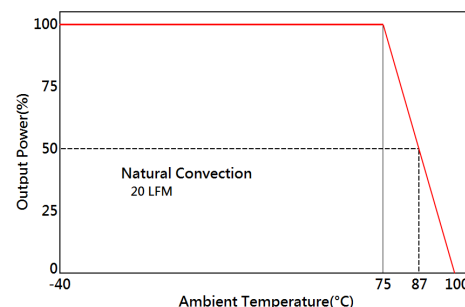
2 : 1 Input Voltage Range

Single & Dual Output

2" x 2"



Temperature Derating Graph



Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Full load @Vin(nom.)			±2	%
Short Circuit /Restart Protection	Hiccup, automatic recovery				
Over Load Protection			150		
Line Regulation	Single & Dual (H/L to L/L)			±0.5	%
Load Regulation	Single & Dual, Balance Load (F.L-50%F.L)			±0.5	%
Cross Regulation	Dual (25% to 100% load)			±5	%
Ripple & Noise	BW=DC To 20MHz (with 1uF Cap.)			100	mVp-p
Transient response setting time	25% load step change			350	us
External Trim Adj. Range	±10% of Output Voltage				

General Specifications

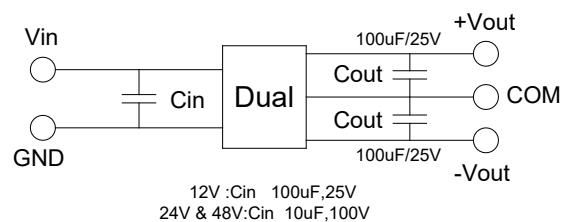
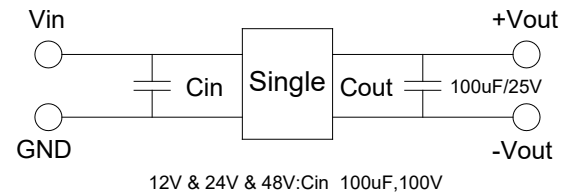
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			270		KHz
Operating Temperature		-40		87	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated with Non-Conductive Base				
Weight			65		g
Dimensions			51.0X51.0X10.3		mm
Potting Material	Epoxy (UL94V-0 rated)				
Radiated Emissions	EN55022		CLASS A		
Conducted Emissions	EN55022		CLASS A		
Isolation Voltage	For 10 seconds			3000	Vdc
MTBF	MIL-HDBK-217F @25°C, Ground Benign	400000			Hours
Storage Temperature		-55		+125	°C
Case Temperature				+105	°C
Isolation Capacitance				2500	pF

Part Number

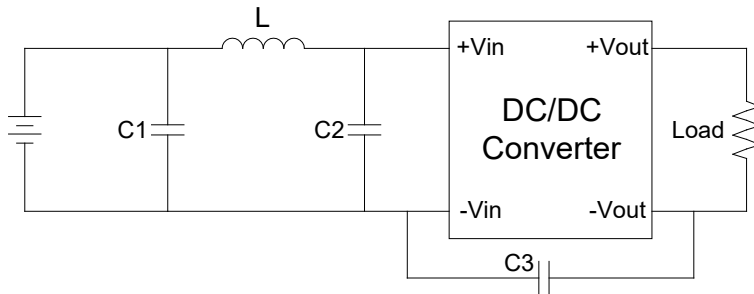
96D - 24 S 05 R NL
A B C D E F

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

Recommended Test Circuit

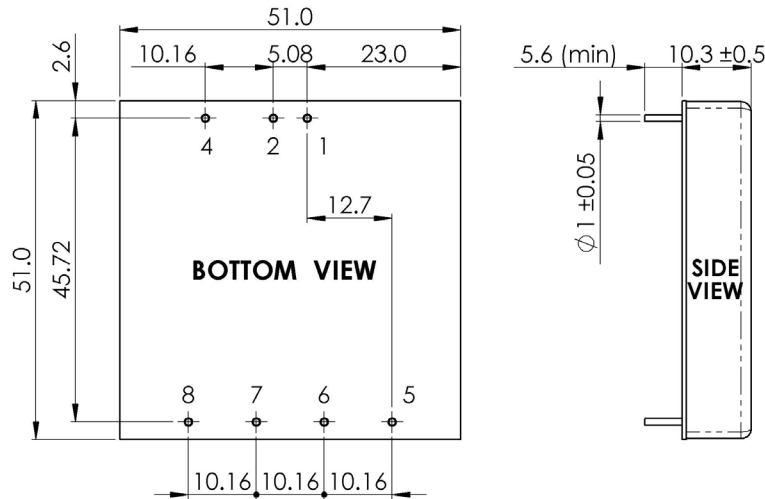


Suggest adding input external filter(C1,C2,L) to meet conducted emissions (EN55022 class A) requirement for the module . These components should be mounted as close as possible to the module; and all leads should be minimized to decrease radiated noise.



- 12V: C1 =330uF/100V
L=12uH
- 12V: C2 =100uF/100V
C3=N/A
- 24V.48V: C1=220uF/100V
L=12uH
- 24V.48V: C2 =100uF/100V
- 24V: C3=N/A
- 48V: C3=1000pF/2KV

Dimensions



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

PIN Connection

Pin	1	2	3	4	5	6	7	8
Single	+Vin	-Vin	No Pin	Remote On/Off	NO PIN	+Vout	-Vout	Trim
Dual	+Vin	-Vin	No Pin	Remote On/Off	+Vout	Com	-Vout	Trim

