

YUAN DEAN SCIENTIFIC



DC-DC Converter

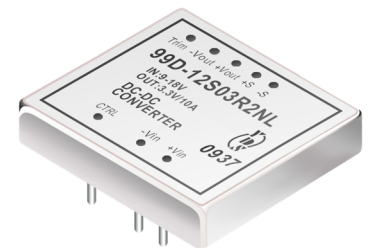
99D-R2 SERIES

40Watt 1.5KV Isolated

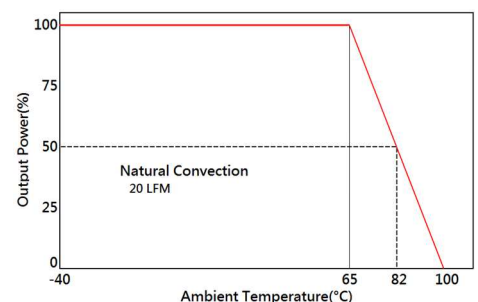
2 : 1 Input Voltage Range

Single & Dual Output

2" x 2"



Temperature Derating Graph



FEATURES :

- 40 Watt 2"X2" DIL Package
- 2:1 Wide Input Voltage
- 100% Burned In
- High Efficiency To 91%
- Customized Solutions Available
- Remote Control:On/Off
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +82°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		Output Voltage	Output Current	Efficiency	Capacitor Load
	Vdc	No-Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	%TYP	uF MAX
99D-12S03R2NL	9-18	120	3125	3.3	10000	88	16000
99D-12S05R2NL	9-18	130	3704	5	8000	90	10000
99D-12S12R2NL	9-18	50	3750	12	3300	88	2000
99D-12S15R2NL	9-18	50	3722	15	2650	89	1200
99D-12D12R2NL	9-18	60	3752	±12	±1670	89	±1000
99D-12D15R2NL	9-18	60	3764	±15	±1340	89	±680
99D-24S03R2NL	18-36	70	1545	3.3	10000	89	16000
99D-24S05R2NL	18-36	80	1832	5	8000	91	10000
99D-24S12R2NL	18-36	30	1833	12	3300	90	2000
99D-24S15R2NL	18-36	30	1840	15	2650	90	1200
99D-24D12R2NL	18-36	30	1855	±12	±1670	90	±1000
99D-24D15R2NL	18-36	30	1861	±15	±1340	90	±680
99D-48S03R2NL	36-75	40	764	3.3	10000	90	16000
99D-48S05R2NL	36-75	50	916	5	8000	91	10000
99D-48S12R2NL	36-75	30	917	12	3300	90	2000
99D-48S15R2NL	36-75	30	920	15	2650	90	1200
99D-48D12R2NL	36-75	30	927	±12	±1670	90	±1000
99D-48D15R2NL	36-75	30	930	±15	±1340	90	±680

Input Specifications

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

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Rev:0 2018/10/31

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 Dual(Balance Load)			±0.5 ±1	%
Cross Regulation	Dual (25% to 100% load)			±5.	%
Ripple & Noise	Output:3-15V TYPES BW=DC To 20MHZ			100	mVp-p
	Output > 15V TYPES BW=DC To 20MHZ			1% of Vout	mVp-p
Transient response setting time	25% load step change		300		us
External Trim Adj. Range				±10	%

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			300		KHz
Operating Temperature	Refer to temperature derating graph (with derating)	-40		82	°C
Humidity	Non Condensing	5		95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated with Non-Conductive Base				
Weight			70		g
Dimensions			51.0X51.0X10.3		mm
Potting Material	Epoxy (UL94V-0 rated)				
Remote ON/OFF	ON		Open		
	OFF		Short to -Vin		
Isolation Voltage				1500	VDC
MTBF	MIL-HDBK-217F @25°C , Ground Benign	151100			Hours
Storage Temperature		-55		+125	°C
Case Temperature				+105	°C
Isolation Capacitance				2500	pF

PIN Assignment

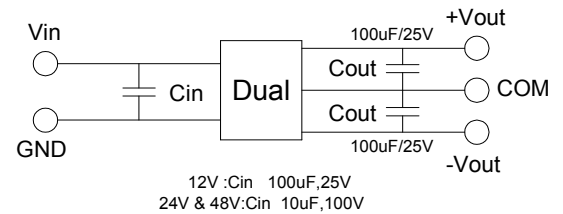
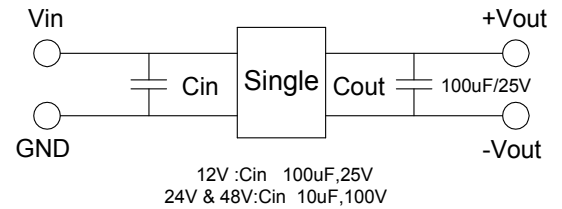
Pin	1	2	3	4	5	6	7	8
Single	+Vin	-Vin	Remote On/Off	-Sense	+Sense	+Vout	-Vout	Trim
Dual	+Vin	-Vin	Remote On/Off	+Vout	Com	Com	-Vout	Trim

Part Number

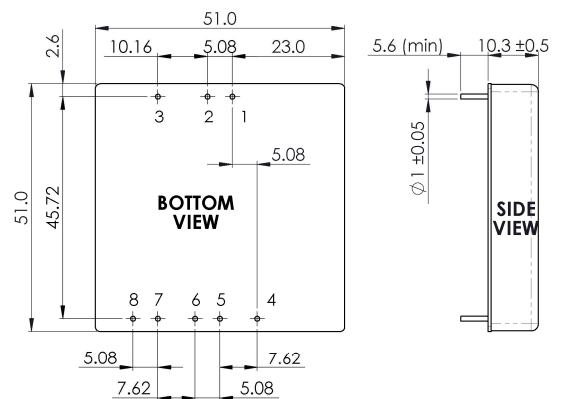
99D - 24 S 05 R 2 NL
A B C D E F G

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

Recommended Test Circuit



Dimensions



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