

**FEATURES :**

- 60 Watt DIL Package
- 2:1 Wide Input Voltage
- 100% Burned In
- High Efficiency To 90%
- Customized Solutions Available
- Remote Control:On/Off
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +75°C
- 3 Years Warranty
- Under Voltage Lockout

YUAN DEAN SCIENTIFIC



DC-DC Converter

93D-R2 SERIES

60Watt 1.5KV Isolated

2 : 1 Input Voltage Range

Single Output

2" x 2"

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.
93D-24S03R2NL	18-36	150	2163	3.3	14000	89	28800
93D-24S05R2NL	18-36	150	2778	5	12000	90	15000
93D-24S12R2NL	18-36	30	2778	12	5000	90	2800
93D-24S15R2NL	18-36	30	2778	15	4000	90	1800
93D-48S03R2NL	36-72	75	1081	3.3	14000	89	28800
93D-48S05R2NL	36-72	75	1389	5	12000	90	15000
93D-48S12R2NL	36-72	30	1389	12	5000	90	2800
93D-48S15R2NL	36-72	30	1389	15	4000	90	1800

**Input Specifications**

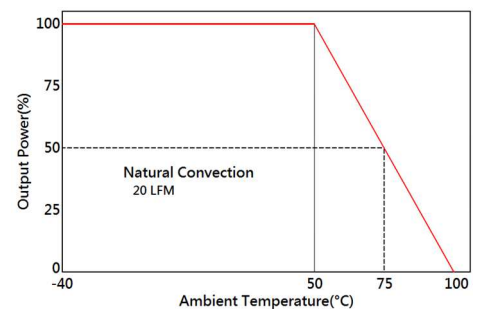
Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Pi Network				
Protection	Fuse Recommended				

**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				±0.5	%
Load Regulation	10% to 100% load			±0.5	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	25% load step change		300		us
Thermal Shutdown			110		°C
External Trim Adj. Range				±10	%



**Temperature Derating Graph**



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General Specifications

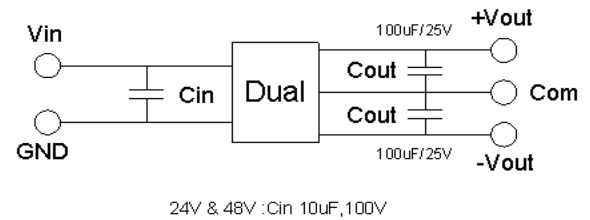
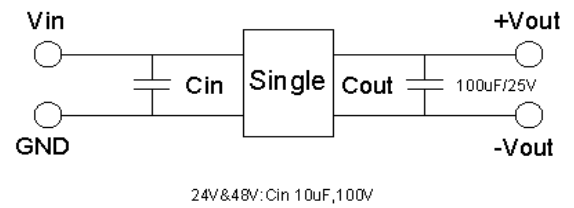
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			300		KHz
Operating Temperature	With derating	-40		75	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated with Non-Conductive Base				
Weight			70		g
Dimensions		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	110000			Hours
Storage Temperature				+125	°C
Case Temperature				+105	°C
Isolation Capacitance				2500	pF

Part Number

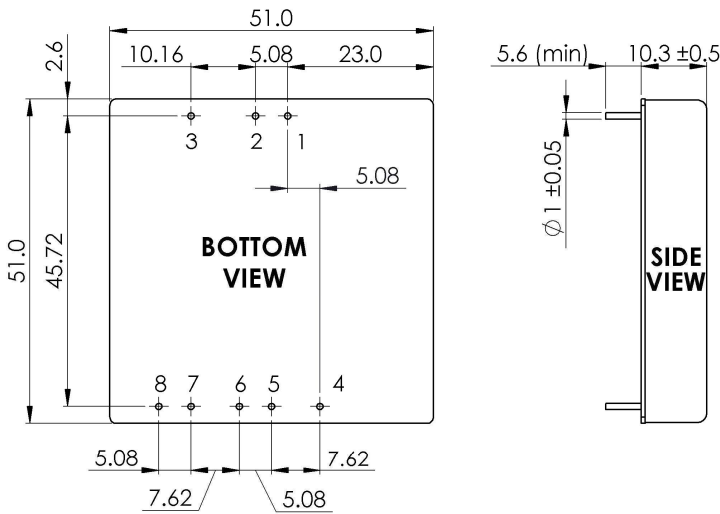
93D - 24 S 05 R 2 NL  
A B C D E F G

- 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

PIN Assignment

Pin	1	2	3	4	5	6	7	8
Function	+Vin	-Vin	Remote ON/OFF	-Sense	+Sense	+Vout	-Vout	Trim