

**FEATURES :**

- 40 Watt 2"X2" DIL Package
- 4:1 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 +82°C
- 3 Years Warranty

YUAN DEAN SCIENTIFIC



DC-DC Converter

99DW-R2 SERIES

40Watt 1.5KV Isolated

4 : 1 Input Voltage Range

Single & Dual Output

2" x 2"



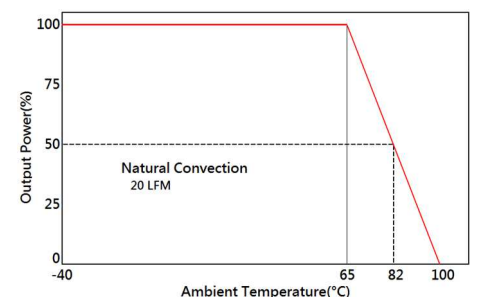
Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

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
99DW-24S03R2NL	9-36	100	1544	3.3	10000	89	16000
99DW-24S05R2NL	9-36	110	1851	5	8000	90	10000
99DW-24S12R2NL	9-36	40	1875	12	3300	88	2000
99DW-24S15R2NL	9-36	40	1882	15	2650	88	1000
99DW-24D12R2NL	9-36	40	1897	±12	±1670	88	±1000
99DW-24D15R2NL	9-36	40	1903	±15	±1340	88	±680
99DW-48S03R2NL	18-75	70	763	3.3	10000	89	16000
99DW-48S05R2NL	18-75	80	925	5	8000	90	10000
99DW-48S12R2NL	18-75	30	937	12	3300	88	2000
99DW-48S15R2NL	18-75	30	941	15	2650	88	1000
99DW-48D12R2NL	18-75	30	948	±12	±1670	88	±1000
99DW-48D15R2NL	18-75	30	951	±15	±1340	88	±680

**Input Specifications**

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Filter	Pi Network				
Protection	Fuse Recommended				
Remote ON/OFF	DC-DC ON (Referred to -Vin pin)	1.3	OPEN	3	Vdc
	DC-DC OFF	0		1.2	Vdc

**Temperature Derating Graph**



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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		350		us
External Trim Adj. Range				±10	%

**General Specifications**

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

**PIN Assignment**

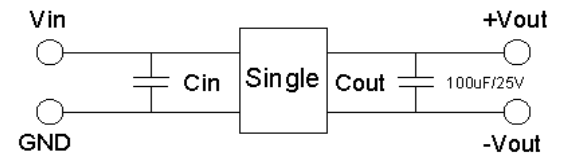
Pin	1	2	3	4	5	6	7	8
Single	+Vin	-Vin	Remote On/Off	-Sense	+Sense	+Vout	-Vout	Trim
Dual	+Vin	-Vin	Remote On/Off	+Vout	Com	Com	-Vout	Trim

**Part Number**

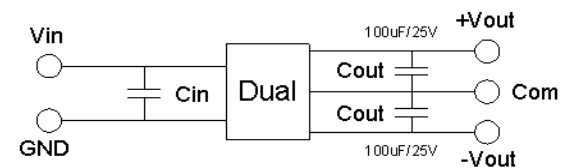
99DW - 24 S 05 R 2 NL  
 A B C D E F G

- 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**

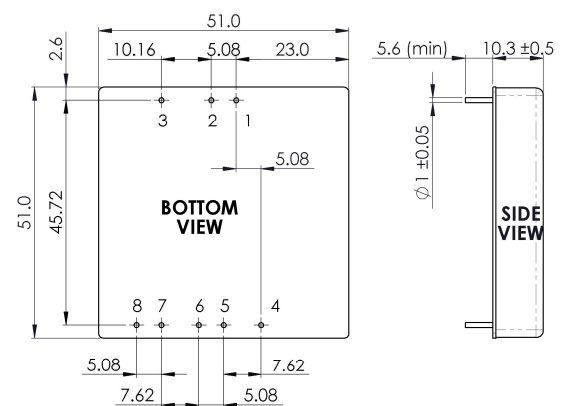


24V&48V: Cin 10uF,100V



24V & 48V :Cin 10uF,100V

**Dimensions**



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