

Wide Input Voltage Range 40 Watt Dc-Dc Converter



FEATURES:

- 2"X2" DIL Package
- 2:1 Wide Input Range
- 100% Burned In
- High Efficiency Up To 91%
- Customized Solutions Available
- Shielded Metal Case with insulated baseplate
- Remote Control ON/OFF
- UL94V-0 Package Material



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	Capacitor Load	Efficiency
	Vdc	No Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	uF Max	%TYP
99D-12S03R2NL	9-18	120	3125	3.3	10000	16000	88
99D-12S05R2NL	9-18	130	3703	5	8000	10000	90
99D-12S12R2NL	9-18	50	3750	12	3300	2000	88
99D-12S15R2NL	9-18	50	3721	15	2650	1200	89
99D-12D12R2NL	9-18	60	3752	±12	±1670	±1000	89
99D-12D15R2NL	9-18	60	3764	±15	±1340	±680	89
99D-24S03R2NL	18-36	70	1544	3.3	10000	16000	89
99D-24S05R2NL	18-36	80	1831	5	8000	10000	91
99D-24S12R2NL	18-36	30	1833	12	3300	2000	90
99D-24S15R2NL	18-36	30	1840	15	2650	1200	90
99D-24D12R2NL	18-36	30	1855	±12	±1670	±1000	90
99D-24D15R2NL	18-36	30	1861	±15	±1340	±680	90
99D-48S03R2NL	36-75	40	763	3.3	10000	16000	90
99D-48S05R2NL	36-75	50	915	5	8000	10000	91
99D-48S12R2NL	36-75	30	916	12	3300	2000	90
99D-48S15R2NL	36-75	30	920	15	2650	1200	90
99D-48D12R2NL	36-75	30	927	±12	±1670	±1000	90
99D-48D15R2NL	36-75	30	930	±15	±1340	±680	90

Input Specifications

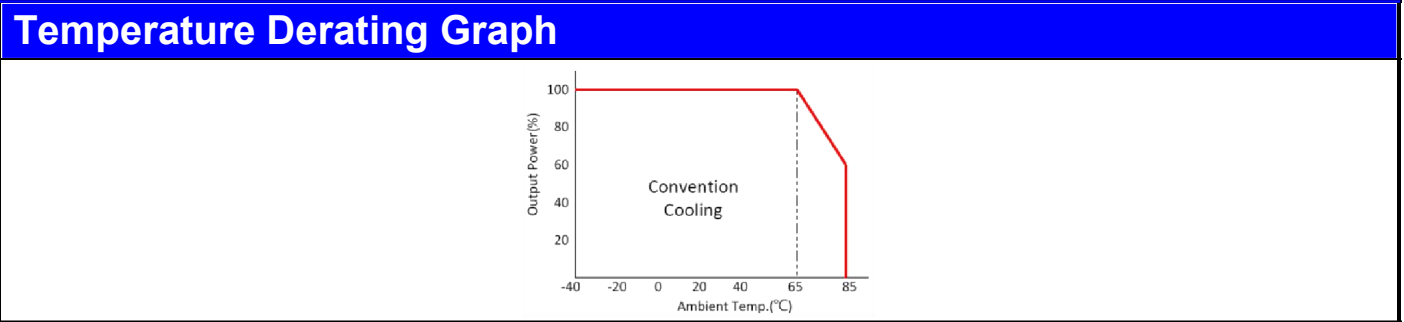
Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	PI Network				
Protection	Fuse Recommended				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Full load@Vin(nom.)			±2	%
Short Circuit 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
Ripple & Noise	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	%

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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		85	°C
Humidity	Non Condensing	5		95	%
Cooling	Free air Convection				
Case material		Nickel Coated with Non-Conductive Base			
Weight		70g			
Dimensions		51.0X51.0X10.3			
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



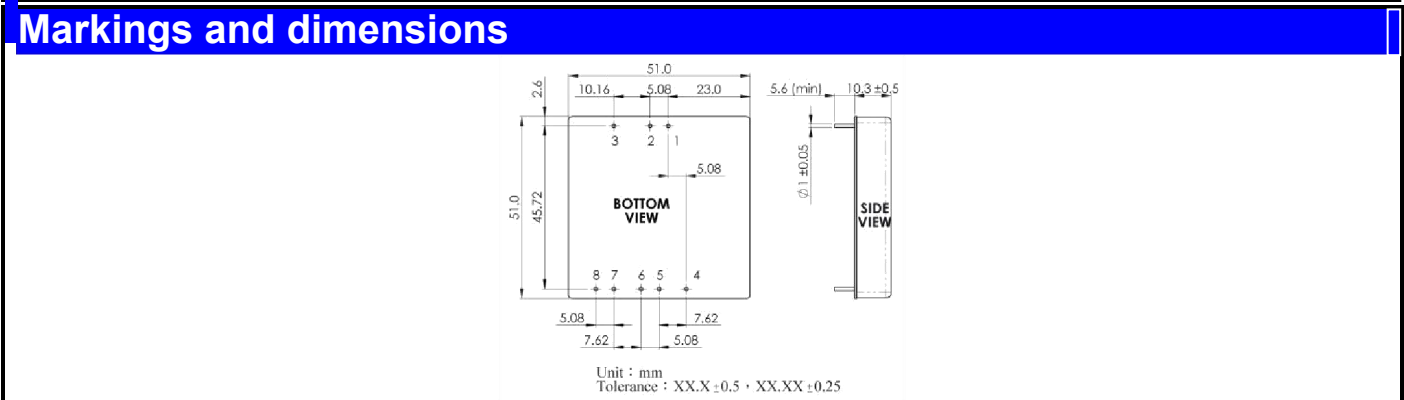
Recommended Test Circuit

12V :Cin 100uF,25V
24V & 48V:Cin 10uF,100V

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



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