

FEATURES :

- 40 Watt 2"X1" 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 +77°C
- 3 Years Warranty

YUAN DEAN SCIENTIFIC



DC-DC Converter

99D-R3 SERIES

40Watt 1.5KV Isolated

2 : 1 Input Voltage Range

Single & Dual Output

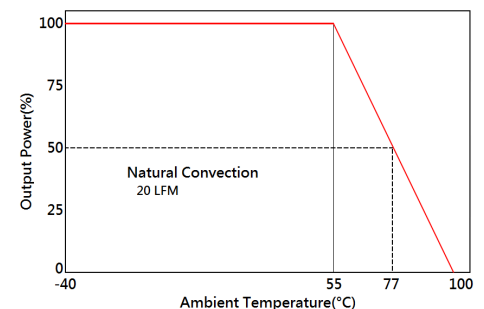
2" x 1"

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	Capacitor Load	Efficiency
	Vdc	No-Load	Full Load	Vdc	Full Load (mA)	uF	%TYP		
99D-12S03R3NL	9-18	160	2472	3.3	8000	16000	89		
99D-12S05R3NL	9-18	160	3745	5	8000	10000	89		
99D-12S12R3NL	9-18	60	3753	12	3340	1800	89		
99D-12S15R3NL	9-18	60	3708	15	2670	1200	90		
99D-12D12R3NL	9-18	60	3795	±12	±1670	±680	88		
99D-12D15R3NL	9-18	60	3807	±15	±1340	±560	88		
99D-24S03R3NL	18-36	90	1236	3.3	8000	16000	89		
99D-24S05R3NL	18-36	90	1873	5	8000	10000	89		
99D-24S12R3NL	18-36	60	1876	12	3340	1800	89		
99D-24S15R3NL	18-36	60	1854	15	2670	1200	90		
99D-24D12R3NL	18-36	50	1898	±12	±1670	±680	88		
99D-24D15R3NL	18-36	50	1882	±15	±1340	±560	89		
99D-48S03R3NL	36-75	70	617	3.3	8000	16000	89		
99D-48S05R3NL	36-75	70	926	5	8000	10000	90		
99D-48S12R3NL	36-75	40	927	12	3340	1800	90		
99D-48S15R3NL	36-75	40	917	15	2670	1200	91		
99D-48D12R3NL	36-75	40	938	±12	±1670	±680	89		
99D-48D15R3NL	36-75	40	941	±15	±1340	±560	89		



Temperature Derating Graph



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	%
Line Regulation				±0.5	%
Load Regulation	Single			±0.5	%
	Dual (Balance Load)			±2	%
Cross Regulation	Dual			±5	%
	(25% to 100% load)				
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
Short Circuit Protection	Hiccup, automatic recovery				
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			350		KHz
Operating Temperature	Refer to temperature derating graph (with derating)	-40		77	°C
Humidity	Non Condensing	5		95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated with Non-Conductive Base				
Weight			40		g
Dimensions			50.8X25.4X11.6		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	328000			Hours
Storage Temperature		-55		+125	°C
Case Temperature				+105	°C
Isolation Capacitance				1500	pF

PIN Assignment

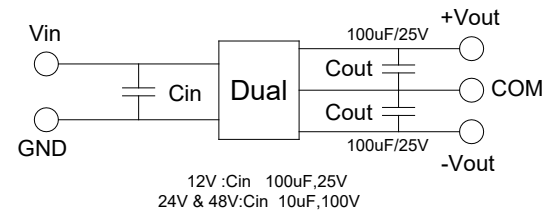
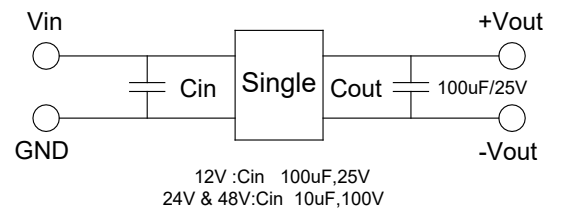
Pin	1	2	3	4	5	6
Single	+Vin	-Vin	Remote On/Off	+Vout	-Vout	Trim
Dual	+Vin	-Vin	Remote On/Off	+Vout	Com	-Vout

Part Number

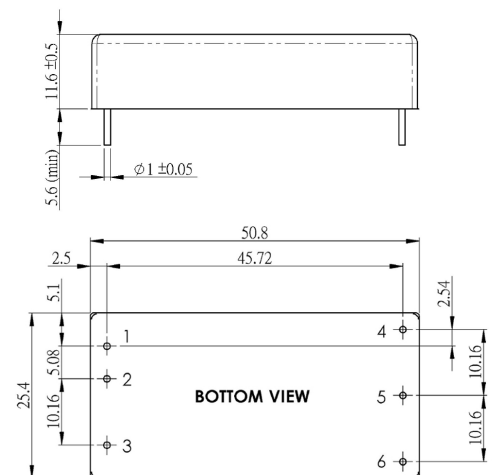
99D - 24 S 05 R 3 NL
A B C D E F G

- 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