Yuan Dean Scientific CO.,LTD 50D SERIES

500Vdc Isolation Single & Dual Output 1.8 Watt Dc-Dc Converter

FEATURES:

- 24PIN DIL Package
- Low Ripple & Noise
- High Efficiency up to 85%
- Unregulated & Regulated Output Types
- Internal SMD Construction ●No External Component Required
- Operating Temperature:-40℃ TO +85℃ ●Industry Standard Pinout

RoHS Compliant

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified			
Part Number	Output Voltage	Output Current	Efficiency
	Vdc	mA	%TYP
50D-XXS05RNL	5	360	58
50D-XXS05NNL	5	360	70
50D-XXD05NNL	±5	±180	70
50D-XXS09RNL	9	200	60
50D-XXS09NNL	9	200	70
50D-XXD09NNL	±9	±100	70
50D-XXS12RNL	12	150	60
50D-XXS12NNL	12	150	75
50D-XXD12RNL	±12	±75	60
50D-XXD12NNL	±12	±75	75
50D-XXS15RNL	15	120	60
50D-XXS15NNL	15	120	75
50D-XXD15RNL	±15	±60	60
50D-XXD15NNL	±15	±60	75
50D-XXS24RNL	24	75	60
50D-XXS24NNL	24	75	80
50D-XXD24RNL	±24	±38	60
50D-XXD24NNL	±24	±38	80

Note:1."XX" Is Input Voltage :05=5Vdc,09=9Vdc,12=12Vdc,15=15Vdc,24=24Vdc. 2.The input voltage increases, there will be an increase in efficiency.

Input Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo, Io Nom			±10	%
Filter	Capacitor				

Output Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Regulated(Continuous)				
Short Circuit Protection	Unregulated(Short Trem)			1Sec	
Line Regulation	Regulated			±0.3	%
Load Regulation	Regulated			±0.5	%
Ripple & Noise	BW=DC To 20MHz			50	mVp-p
Line Regulation	Unregulated (For 1% of Vin)		1.2		%
Load Regulation	Unregulated (20% To 100% F.L)			10	%

General Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load,nominal input		50		KHz
Operating Temperature		-40		85	℃
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25℃(Unregulated)	2500000			Hours
MTBF	MIL-HDBK-217F@25℃(Regulated)	1500000			Hours
Weight			15.5		g
Dimensions			33.0x17.0x10.16		mm

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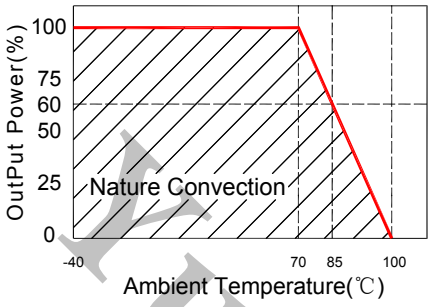
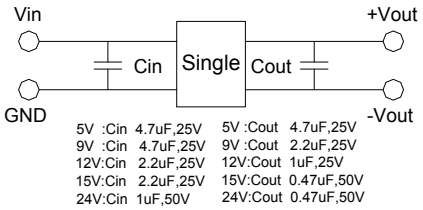
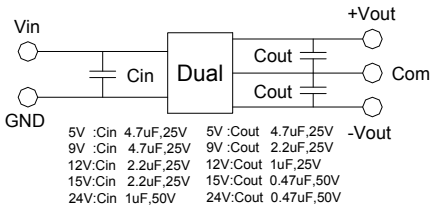
Temperature Derating Graph

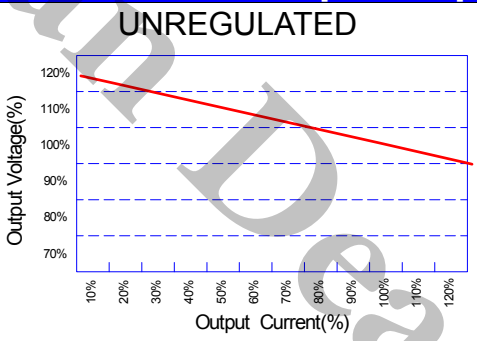


Recommended Test Circuit





Tolerance Envelope Graph

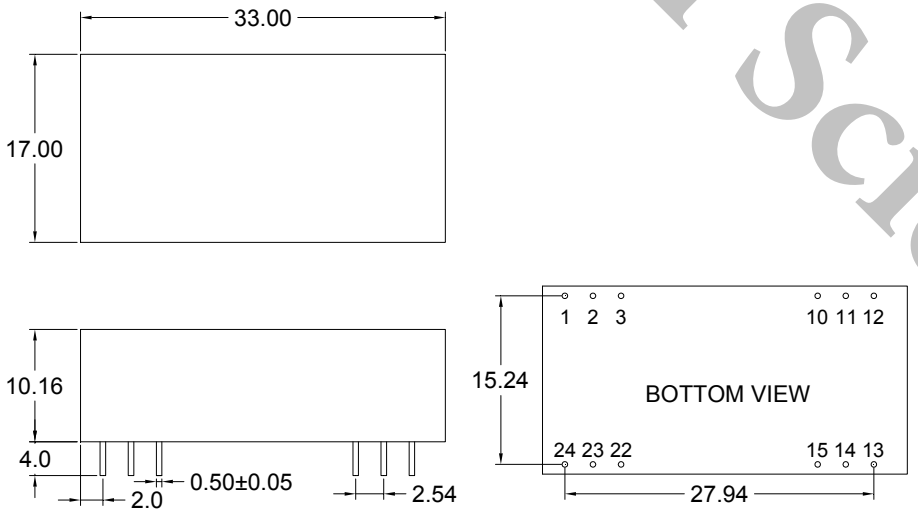


Part Number

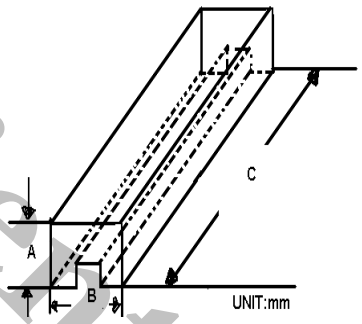
50D	-	05	S	05	R	NL
A		B	C	D	E	F

A:Series
B:Input Voltage
C:Single(S)Dual(D)
D:Output Voltage
E:Regulated(R)Unregulated(N)
F:RoHS Version

Markings and dimensions



Packaging



SIZE(mm)		
A	B	C
18.71	23.00	522

UNIT： mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1	2	3	10	11	12	13	14	15	22	23	24
Single	+Vin	NC	NC	-Vout	+Vout	-Vin	-Vin	+Vout	-Vout	NC	NC	+Vin
Dual	+Vin	-Vout	Com	Com	+Vout	-Vin	-Vin	+Vout	Com	Com	-Vout	+Vin

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