

FEATURES :

- 14PIN DIL Package
- High Efficiency up to 85%
- Internal SMD Construction
- Unregulated Output Types
- No External Component Required
- Operating Temperature:-40°C to +85°C
- Industry Standard Pinout

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

Part Number	Output Voltage	Output Current	Efficiency	Package Style	Recognized by UL 60950-1
	Vdc	mA	%Typ		
22D-XXS03NNL	3.3	303	70	1	
22D-XXS05NNL	5	200	70	1	
22D-XXS09NNL	9	112	75	1	
22D-XXS12NNL	12	84	78	1	
22D-XXS15NNL	15	67	80	1	
22D-XXS24NNL	24	42	82	1	22D-05D05NNL
22D-XXD03NNL	±3.3	±150	70	1	22D-05D12NNL
22D-XXD05NNL	±5	±100	70	1	22D-05D15NNL
22D-XXD09NNL	±9	±56	75	1	22D-05D24NNL
22D-XXD12NNL	±12	±42	78	1	22D-12D12NNL
22D-XXD15NNL	±15	±34	80	1	22D-12D15NNL
22D-XXD24NNL	±24	±21	82	1	22D-24D05NNL
22D-XXS05N2NL	5	200	70	2	22D-24D12NNL
22D-XXS09N2NL	9	112	75	2	22D-24D24NNL
22D-XXS12N2NL	12	84	78	2	
22D-XXS15N2NL	15	67	80	2	
22D-XXS24N2NL	24	42	82	2	
22D-XXD05N2NL	±5	±100	70	2	
22D-XXD09N2NL	±9	±56	75	2	
22D-XXD12N2NL	±12	±42	78	2	
22D-XXD15N2NL	±15	±34	80	2	
22D-XXD24N2NL	±24	±21	82	2	

Note:

- 1."XX" Is Input Voltage:03 = 3.3Vdc,05=5Vdc,09=9Vdc,12=12Vdc,15=15Vdc.24=24Vdc, 48=48Vdc.
2. Over 48Vdc input voltage, using the 2nd package.
3. 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				

YUAN DEAN SCIENTIFIC



DC-DC Converter

22D SERIES

1Watt

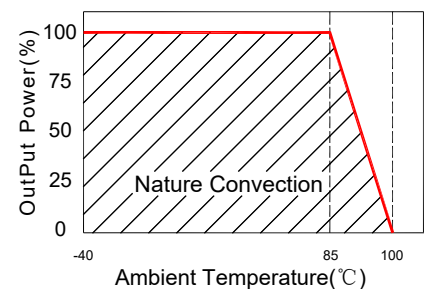
1KV Isolated

Single & Dual Output

DIL14



Temperature Derating Graph



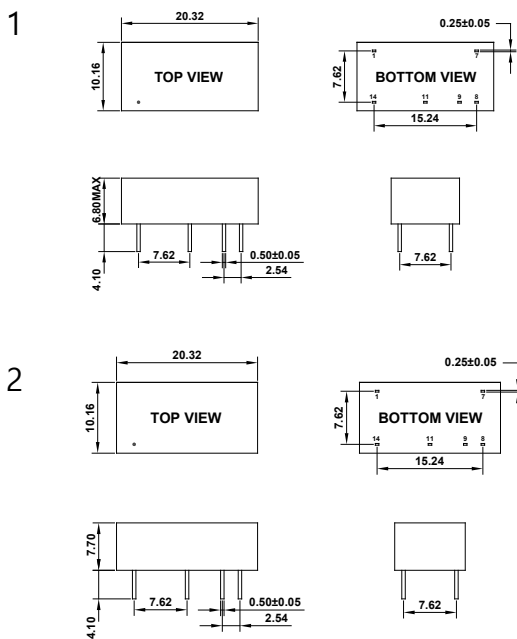
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Short Term			1	Sec
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V,5V (10% To 100% F.L)			15	%
Load Regulation	9V,12V,15V,24V (10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications

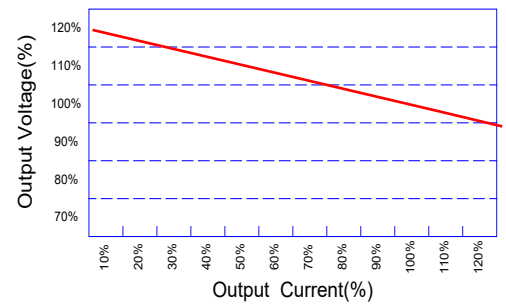
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight	Package 1 or Package 2		2.3 or 2.8		g
Dimensions	Package 1		20.32x10.16x6.80		mm
Dimensions	Package 2		20.32x10.16x7.70		mm

Markings and Dimensions



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

Tolerance Envelope Graph

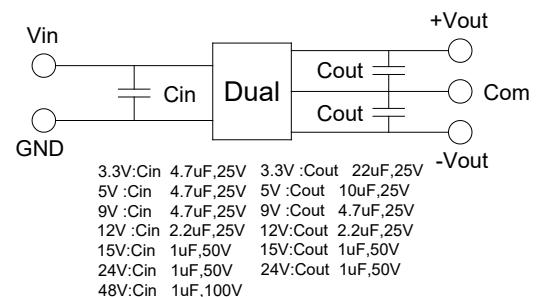
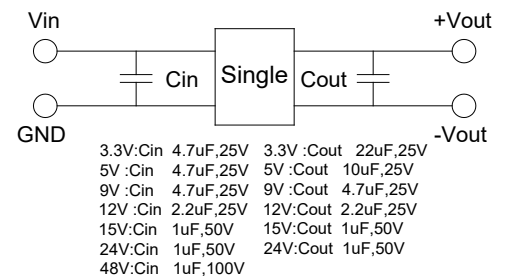


Part Number

22D - 05 D 05 N 2 NL
A B C D E F G

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

Recommended Test Circuit



PIN Connection

PIN	1	7	8	9	11	14
Single	-Vin	NC	-Vout	+Vout	NC	+Vin
Dual	-Vin	NC	COM	+Vout	-Vout	+Vin

