



1000Vdc Dual Output 1 Watt Dc-Dc Converter



FEATURES:

- 14PIN DIL Package
- 1000Vdc Isolation
- Unregulated Output Types
- Recognized By UL 1950
- Operating Temperature:-40°C TO +85°C
- MTBF:>3,500,000 hrs



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
	Vdc	mA	%TYP	
22D-XXD05NNL	±5	±100	70	1
22D-XXD09NNL	±9	±56	75	1
22D-XXD12NNL	±12	±42	75	1
22D-XXD15NNL	±15	±34	75	1
22D-XXD05N2NL	±5	±100	70	2
22D-XXD09N2NL	±9	±56	75	2
22D-XXD12N2NL	±12	±42	75	2
22D-XXD15N2NL	±15	±34	75	2

Note: 1."XX" Is Input Voltage;.05=5Vdc,12=12Vdc,15=15Vdc.24=24Vdc,48=48Vdc

2. Over 24Vdc input voltage, using the 2nd package

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				±10	%
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±5	%
Short Circuit Protection	Short Term		1Sec		
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	5V (10% To 100% F.L.)			15	%
Load Regulation	9V,12V & 15V (10% To 100% F.L.)			10	%
Ripple & Noise	Input:3.3V & 48V BW=DC To 20MHz			150	mVp-p
Ripple & Noise	Input:5V,12V & 15V, 24V BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

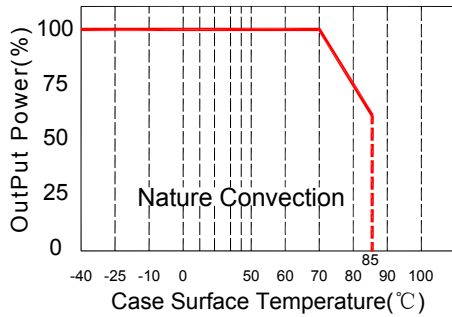
General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switngfrequency			100		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
Weight			2.3		g
Dimensions	Package 1	20.32x10.16x6.80			mm
Dimensions	Package 2	20.32x10.16x7.70			mm

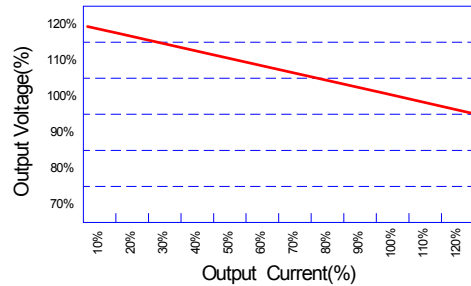


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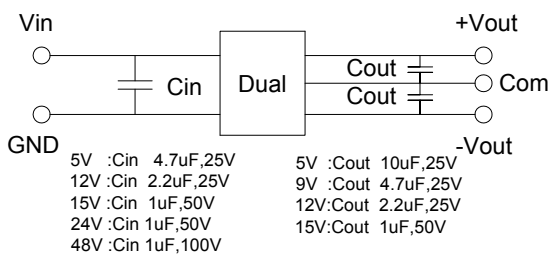
Temperature Derating Graph



Tolerance Envelope Graph



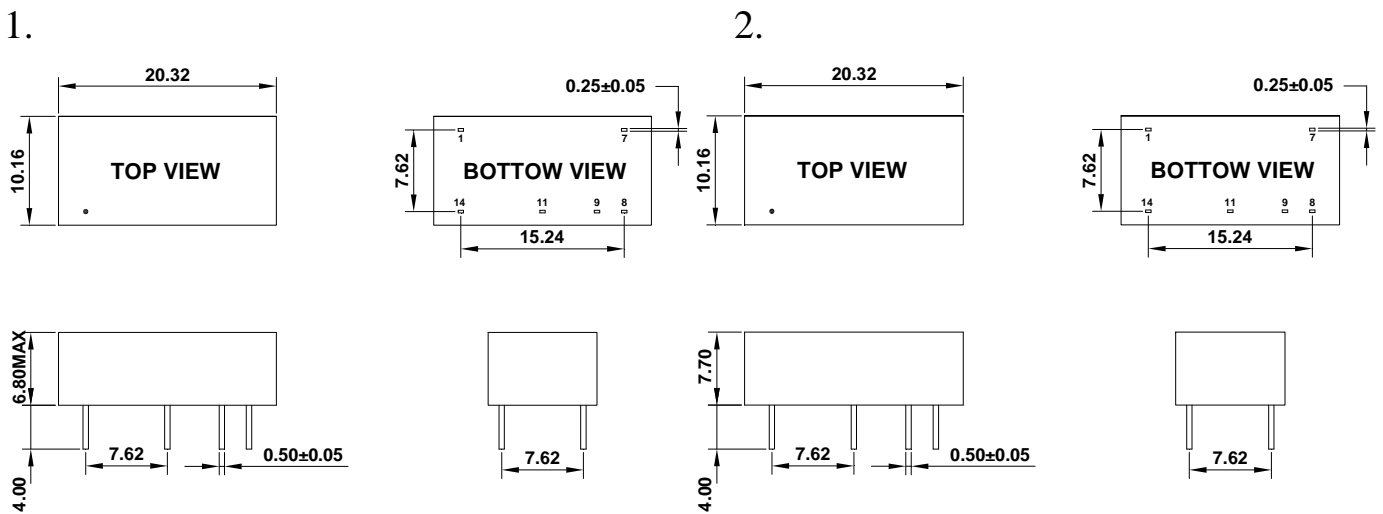
Recommended Test Circuit



Part Number

22D - 05 D 05 N NL
 A B C D E F
 A:Series
 B:Input Voltage
 C:Dual(D)
 D:Output Voltage
 E:Unregulated(N)
 F:RoHS Version

Markings and dimensions



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

PIN Connection

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