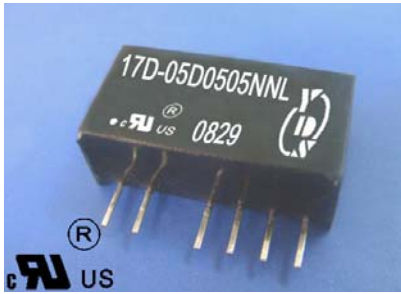




## 1000Vdc Twin Output 1 Watt Dc-Dc Converter



### FEATURES:

- 7PIN SIP Package
- High Efficiency up to 85%
- Recognized By UL 60950-1
- Unregulated Output Types
- Internal SMD Construction
- 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	Output2		Efficiency
	Voltage (VDC)	Current (mA)	%TYP
17D-XXDXX03NNL	3.3	150	70
17D-XXDXX05NNL	5	100	70
17D-XXDXX09NNL	9	56	70
17D-XXDXX12NNL	12	42	70
17D-XXDXX15NNL	15	34	70
17D-XXDXX24N2NL	24	21	70

Note: 1. "XX" Is Voltage: 03=3.3Vdc, 05=5Vdc, 09=9Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc.

2. 3.3V for output only, not for input.

3. The input voltage increases, there will be an increase in efficiency. 4. Over 24Vdc input voltage or Output voltage, using the 2nd package

### Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo, Io Nom			±5	%
Filter	Capacitor				

### Output Specifications

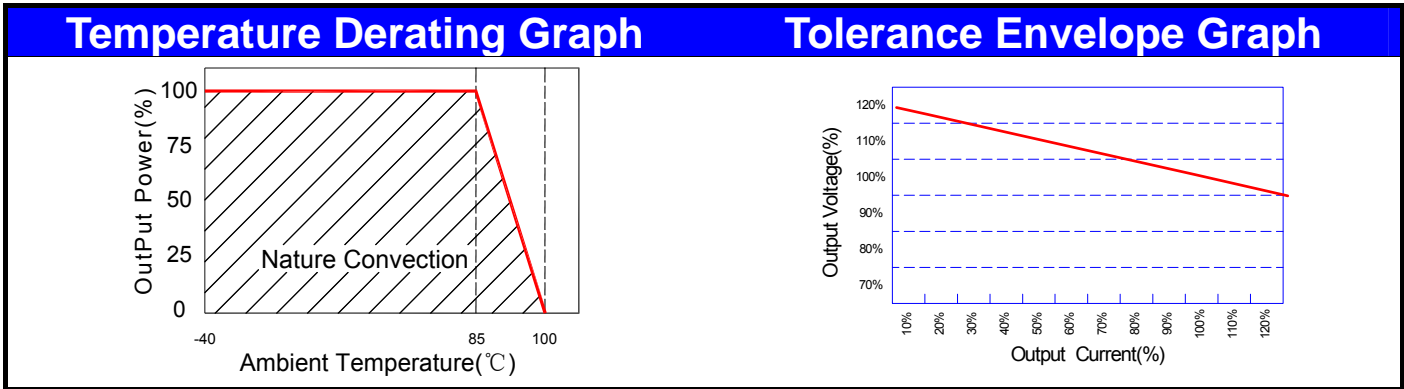
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Short Term			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V, 5V (10% To 100% F.L.)			15	%
Load Regulation	9V, 12V, 15V (10% To 100% F.L.)			10	%
Ripple & Noise	BW=DC To 20MHz			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			2.1 or 2.7		g
Dimensions			19.5x6.0x10.0		mm
Dimensions			19.5x7.1x10.0		mm



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### Recommended Test Circuit

5V :Cin 4.7uF,25V    3.3V :Cout 22uF,25V  
 9V :Cin 4.7uF,25V    5V :Cout 10uF,25V  
 12V:Cin 2.2uF,25V    9V :Cout 4.7uF,25V  
 15V:Cin 1uF,50V      12V:Cout 2.2uF,25V  
 24V:Cin 1uF,50V      15V:Cout 1uF,50V  
 24V:Cout 1uF,50V

### Part Number

17D - 05 D 0503 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

### Packaging

Size(mm)			
A	B	C	D
9.50	16.50	522	5.00

PIN Connection						
PIN	1	2	4	5	6	7
Dual	+Vin	-Vin	+Vout1	- Vout1	+Vout2	-Vout2