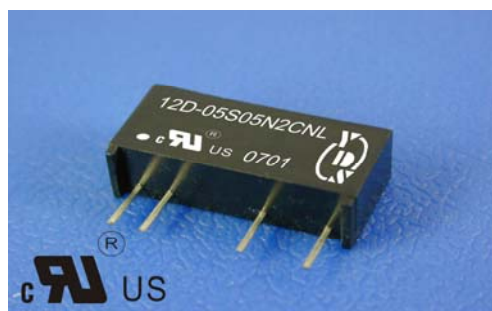




3000Vdc Single & Dual Output 1 Watt Dc-Dc Converter



FEATURES:

- 7PIN SIP Package
- 3000Vdc 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	
12D-XXS05NNL	5	200	70	1
12D-XXS09NNL	9	112	75	1
12D-XXS12NNL	12	84	75	1
12D-XXS15NNL	15	67	75	1
12D-XXD05NNL	±5	±100	70	1
12D-XXD09NNL	±9	±56	75	1
12D-XXD12NNL	±12	±42	75	1
12D-XXD15NNL	±15	±34	75	1
12D-XXS05N2NL	5	200	70	2
12D-XXS09N2NL	9	112	75	2
12D-XXS12N2NL	12	84	75	2
12D-XXS15N2NL	15	67	75	2
12D-XXD05N2NL	±5	±100	70	2
12D-XXD09N2NL	±9	±56	75	2
12D-XXD12N2NL	±12	±42	75	2
12D-XXD15N2NL	±15	±34	75	2

Note: 1. "XX" Is Input Voltage :03=3.3Vdc, 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 Tolerance				±5	%
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±5	%
Short Circuit Protection	Short Term		1 Sec		
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	BW=DC To 20MHz			150	mVp-p
Transient response setting time	50% load step change		350		us

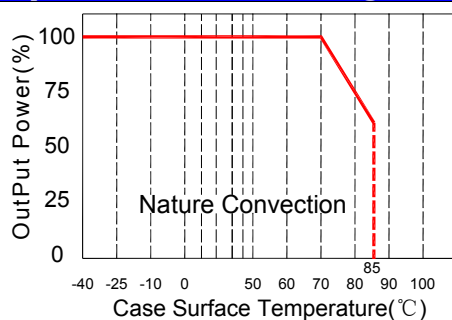


3000Vdc Single & Dual Output 1 Watt Dc-Dc Converter

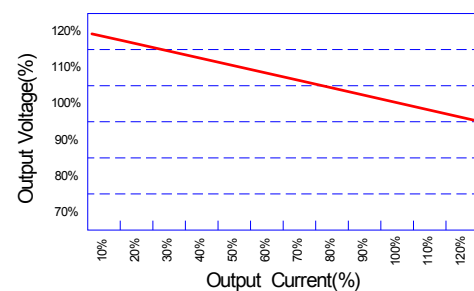
General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			100		KHz
Operation Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
Weight			2.1		g
Dimensions	Package Style1	19.5x6.0x10.0			mm
Dimensions	Package Style2	19.5x7.1x10.0			mm

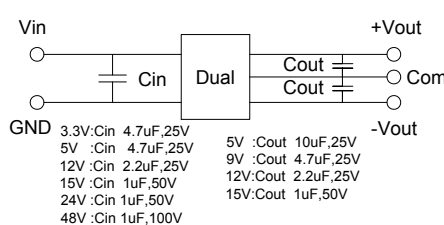
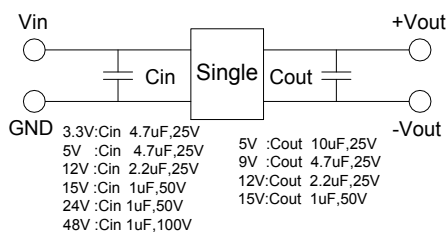
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit

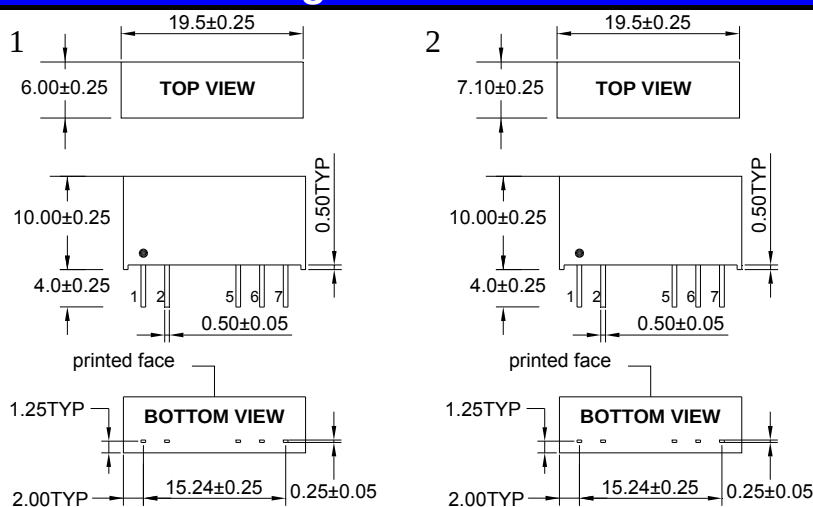


Part Number

12D - 05 S 05 N 2 C NL
A B C D E F G H

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

Markings and dimensions



PIN Connection

PIN	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Com
7	+Vout	+Vout

UNIT : mm TYP tolerances are ±0.5