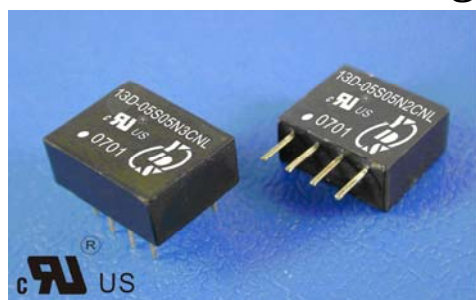




1000Vdc Single Output 1 Watt Dc-Dc Converter



FEATURES:

- 4 PIN SIP and 8 PIN DIL Package.
- 1000Vdc Isolation.
- Unregulated Output Types.
- Recognized By UL 1950
- Operating Temperature:-40℃ TO +85℃
- 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	Part Number	Output Voltage	Output Current	Efficiency	Package Style
	Vdc	mA	%TYP			Vdc	mA	%TYP	
13D-05S03NNL	3.3	303	70	1	13D-05S03N3CNL	3.3	303	75	3
13D-XXS05NNL	5	200	70	1	13D-XXS05N3CNL	5	200	70	3
13D-XXS09NNL	9	110	75	1	13D-XXS09N3CNL	9	110	75	3
13D-XXS12NNL	12	84	75	1	13D-XXS12N3CNL	12	84	75	3
13D-XXS15NNL	15	67	75	1	13D-XXS15N3CNL	15	67	75	3
13D-48S05N2NL	5	200	70	2	13D-48S05N4CNL	5	200	70	4
13D-48S09N2NL	9	110	75	2	13D-48S09N4CNL	9	110	75	4
13D-48S12N2NL	12	84	75	2	13D-48S12N4CNL	12	84	75	4
13D-48S15N2NL	15	67	75	2	13D-48S15N4CNL	15	67	75	4

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

2.. Over 48Vdc input voltage, using the 2nd or 4nd package

Input Specifications

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

Output Specifications

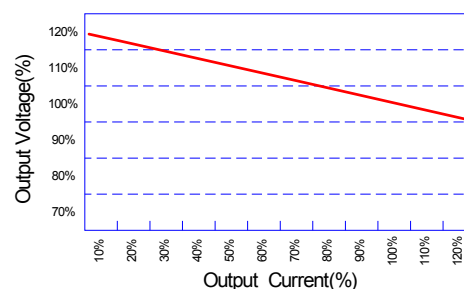
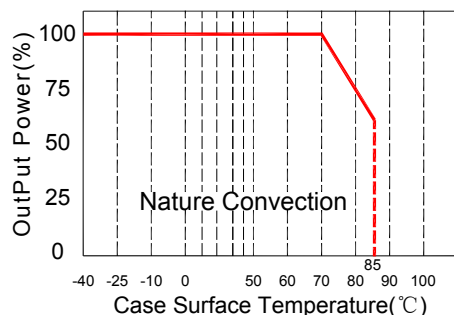
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±5	%
Short Circuit Protection	Short Term		1 Sec		
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V & 5V (10% To 100% F.L)			15	%
Load Regulation	9V,12V & 15V (10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz			150	mVp-p
Transient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

General Specifications

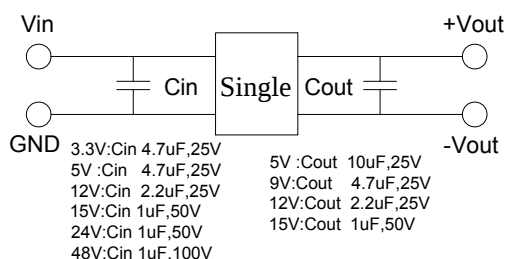
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switngfrequency			100		KHz
Operating Temperature		-40		+85	℃
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
Weight			2.3		g
Dimensions	Package 1	11.50x6.00x10.00			mm
Dimensions	Package 2	11.50x7.50x10.00			mm
Dimensions	Package 3	12.70x10.16x6.80			mm
Dimensions	Package 4	12.70x12.70x9.50			mm



Tolerance Envelope Graph

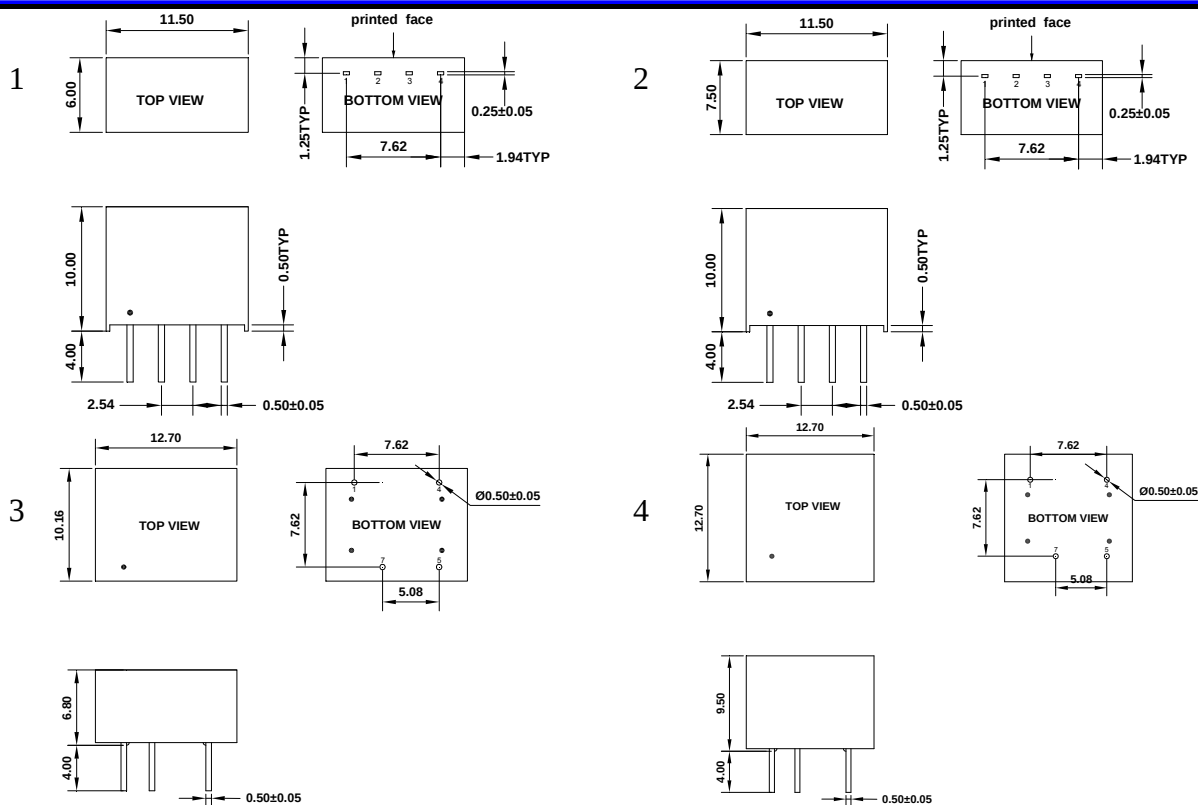


Part Number



13D	-	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



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

NOTE: "TYP" tolerances are ± 0.5

PIN Connection

PIN	1	2	3	4	5	7
4IN	-Vin	+Vin	-Vout	+Vout		
8IN	-Vin			+Vin	+Vout	-Vout