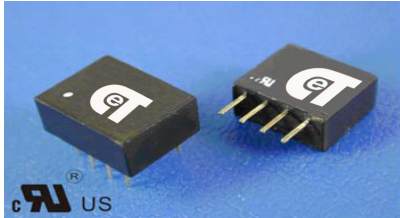


CT-13D-1W SERIES

1000Vdc Isolation Single Output 1 Watt Dc-Dc Converter



FEATURES:

- 4 PIN SIP and 8 PIN DIL Package.
- High Efficiency up to 85%.
- Unregulated Output Types.
- Recognized By UL 60950-1
- 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	Output Voltage	Output Current	Efficiency	Package Style	Part Number	Output Voltage	Output Current	Efficiency	Package Style
	Vdc	mA	%TYP			Vdc	mA	%TYP	
CT-XXS03NNL	3.3	303	70	1	CT-XXS03N3NL	3.3	303	70	3
CT-XXS05NNL	5	200	70	1	CT-XXS05N3NL	5	200	70	3
CT-XXS09NNL	9	110	75	1	CT-XXS09N3NL	9	110	75	3
CT-XXS12NNL	12	84	78	1	CT-XXS12N3NL	12	84	78	3
CT-XXS15NNL	15	67	80	1	CT-XXS15N3NL	15	67	80	3
CT-XXS24NNL	24	42	82	1	CT-XXS24N3NL	24	42	82	3
CT-XXS03N2NL	3.3	303	70	2	CT-XXS03N4NL	3.3	303	70	4
CT-XXS05N2NL	5	200	70	2	CT-XXS05N4NL	5	200	70	4
CT-XXS09N2NL	9	110	75	2	CT-XXS09N4NL	9	110	75	4
CT-XXS12N2NL	12	84	78	2	CT-XXS12N4NL	12	84	78	4
CT-XXS15N2NL	15	67	80	2	CT-XXS15N4NL	15	67	80	4
CT-XXS24N2NL	24	42	82	2	CT-XXS24N4NL	24	42	82	4

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

2. The input voltage increases, there will be an increase in efficiency.

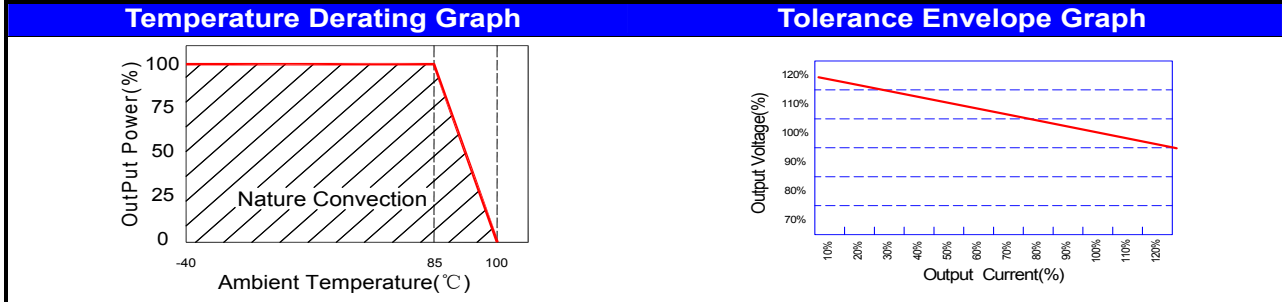
Input Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Voltage Tolerance	Vo, Io Nom			±10	%	
Filter	Capacitor					

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	

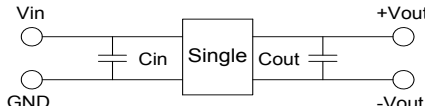
General Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Isolation Resistance	500Vdc	1000			MΩ	
Switching Frequency	Full load, nominal input		100		KHz	
Operating Temperature		-40		+85	°C	
Humidity	Non Condensing			95	%	
Cooling	Free air Convection					
Case material	DAP					
MTBF	MIL-HDBK-217F@25°C	3500000			Hours	
Weight	Package 1/2/3/4		1.5/1.9/1.5/2.7		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	

CT-13D-1W SERIES

1000Vdc Isolation Single Output 1 Watt Dc-Dc Converter



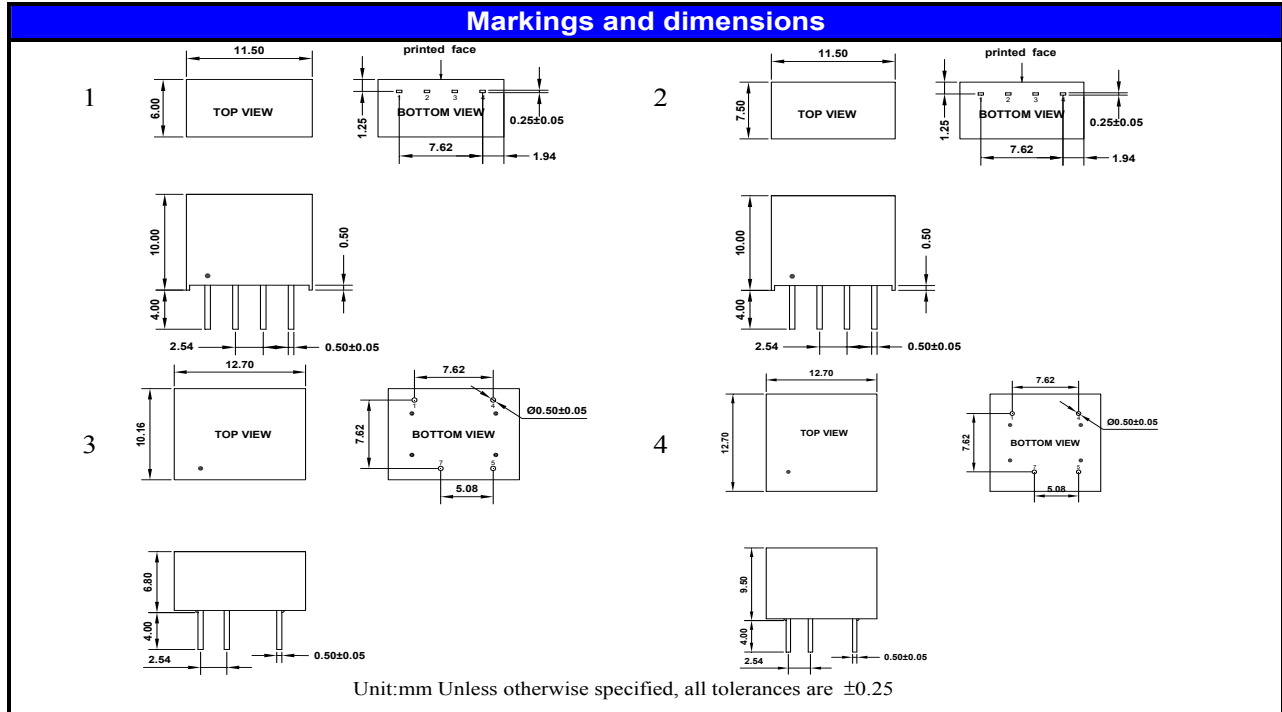
Recommended Test Circuit



3.3V: Cin 4.7uF, 25V 3.3V: Cout 22uF, 16V
 5V: Cin 4.7uF, 25V 5V: Cout 10uF, 25V
 9V: Cin 4.7uF, 25V 9V: Cout 4.7uF, 25V
 12V: Cin 2.2uF, 25V 12V: Cout 2.2uF, 25V
 15V: Cin 1uF, 50V 15V: Cout 1uF, 50V
 24V: Cin 1uF, 50V 24V: Cout 1uF, 50V

Part Number

13D - 05 S 05 N 2 NL
A B C D E F G
 A: Series
 B: Input Voltage
 C: Single Output
 D: Output Voltage
 E: Unregulated(N)
 F: Package
 G: RoHS Version



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