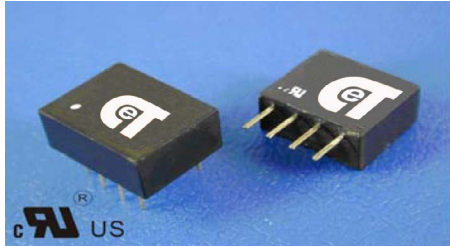


## CT-13D1-1W SERIES

### 3000Vdc Isolation Single Output 1 Watt Dc-Dc Converter



#### FEATURES:

- 4 PIN SIP and 8 PIN DIL Package.
- High insulation 3000Vdc.
- High Efficiency up to 85%.
- 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	Output Voltage	Output Current	Efficiency	Package Style
	Vdc	mA	%TYP	"X"
CT-XXS03NX	3.3	303	70	1/2/3/4
CT-XXS05NX	5	200	70	1/2/3/4
CT-XXS09NX	9	112	75	1/2/3/4
CT-XXS12NX	12	84	78	1/2/3/4
CT-XXS15NX	15	67	80	2/3/4
CT-XXS24NX	24	42	82	2/3/4

Note: 1. "XX" Is Input Voltage: 03=3.3Vdc, 05=05Vdc, 09=09Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc. 2. Over 24Vdc input voltage, using the 3 package 3. The input voltage increases, there will be an increase in efficiency.

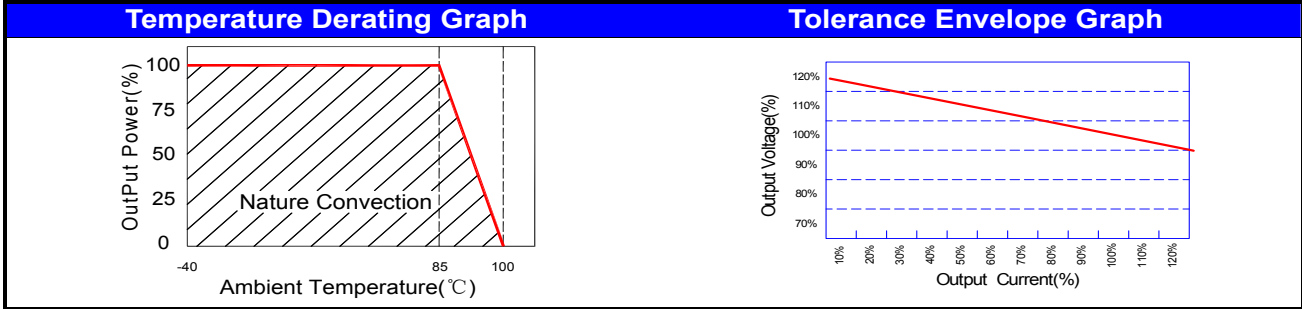
Input Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo, Io Nom			± 10	%
Filter	Capacitor				

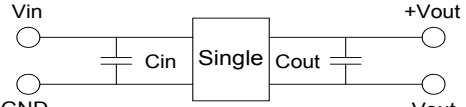
Output Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			± 5	%
Short Circuit Protection	Short Term			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V & 5V (10% To 100% F.L)			15	%
Load Regulation	9V,12V,15V&24V (10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz(Package 1)			150	mVp-p
Ripple & Noise	BW=DC To 20MHz (Package 2/3/4)			100	mVp-p
Transient response setting time	50% load step change		350		us

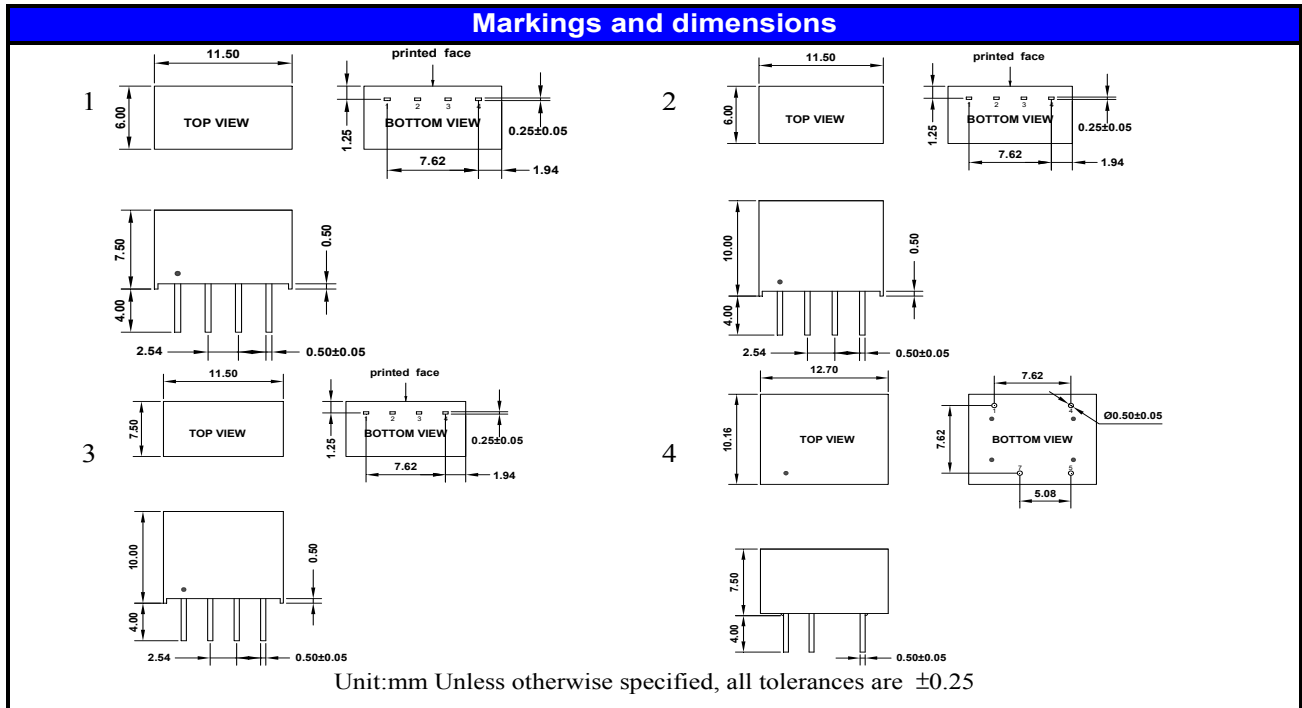
General Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight	Package 1/2/3/4		1.1/1.5/1.9/1.9		g
Dimensions	Package 1		11.50x6.00x7.5		mm
Dimensions	Package 2		11.50x6.00x10.0		mm
Dimensions	Package 3		11.50x7.50x10.0		mm
Dimensions	Package 4		12.7x10.16x7.50		mm

## CT-13D1-1W SERIES

### 3000Vdc Isolation Single Output 1 Watt Dc-Dc Converter



Recommended Test Circuit	Part Number
 <p>           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         </p>	<b>13D1 - 03 S 05 N 2</b> <b>A B C D E F</b> A:Series B:Input Voltage C:Single Output D:Output Voltage E:Unregulated(N) F:Package



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