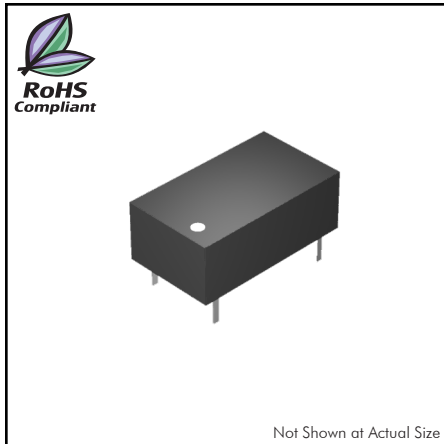


## CTDD2010DF-S

### Series

**Fixed Input Isolated & Unregulated  
1W Output, Single Output**



### FEATURES

- Efficiency:** To 81%
- Temperature Range:** -40°C to +85°C
- Isolation:** 3KVDC
- Package:** UL94-V0
- Miscellaneous:** Single Output Voltage. Fixed Input Voltage. Power Density 0.85W/cm<sup>3</sup>. Unregulated Output Voltage. No heatsink required. No external component required. Industry standard pinout. Fully encapsulated. Small footprint. Custom service available.
- Additional Information:** Additional electrical & physical information available upon request.
- Samples available.** See website for ordering information.

### CHARACTERISTICS

- Short Circuit Protection:** 1 Second.
- Temperature Rise at Full Load:** 25°C Max., 15°C Typ.
- Cooling:** Free air convection.
- No-load Power Consumption:** 10% nominal power Typ.
- Operating Temperature Range:** -40°C to +85°C
- Storage Temperature Range:** -55°C to +125°C
- Lead Temperature:** 300°C (1.5mm from case for 10 seconds)
- Storage Humidity Range:** ≤95%
- Case Material:** Plastic (UL94-V0)
- MTBF:** >1,000,000 hours
- Miscellaneous:** **RoHS Compliant.**

### SPECIFICATIONS

Part Number	Vin Nom. (VDC)	Input Range (VDC)	Vout (VDC)	Iout Max. (mA)	Iout Min. (mA)	Effi. Typ. (%)
CTDD2010DF-0505S-1	5	4.5-5.5	5	200	20	78
CTDD2010DF-0509S-1	5	4.5-5.5	9	111	12	78
CTDD2010DF-0512S-1	5	4.5-5.5	12	83	9	80
CTDD2010DF-0515S-1	5	4.5-5.5	15	67	7	81
CTDD2010DF-1205S-1	12	10.8-13.2	5	200	20	79
CTDD2010DF-1209S-1	12	10.8-13.2	9	111	12	79
CTDD2010DF-1212S-1	12	10.8-13.2	12	83	9	81
CTDD2010DF-1215S-1	12	10.8-13.2	15	67	7	81
CTDD2010DF-2405S-1	24	21.6-26.4	5	200	20	79
CTDD2010DF-2409S-1	24	21.6-26.4	9	111	12	80
CTDD2010DF-2412S-1	24	21.6-26.4	12	83	9	80
CTDD2010DF-2415S-1	24	21.6-26.4	15	67	7	80

### ISOLATION SPECIFICATIONS

Item	Test Condition	Min.	Typ.	Max.	Units
Isolation Voltage	Tested for 1 minute	3000			VDC
Isolation Resistance	Test at 500VDC	1000			MΩ

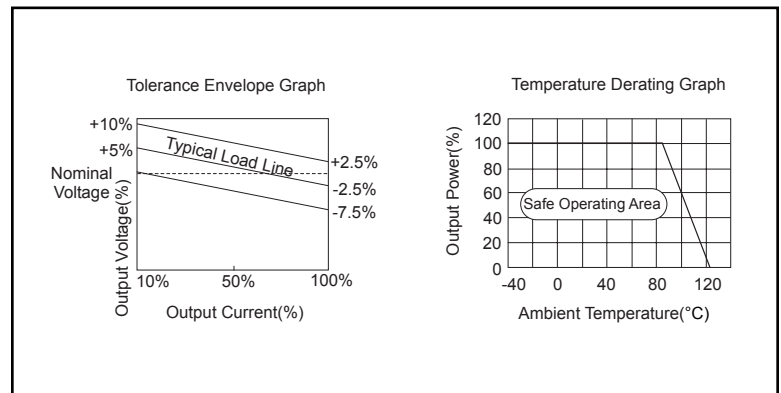
### OUTPUT SPECIFICATIONS

Item	Test Condition	Min.	Typ.	Max.	Units
Output Power		0.1		1	W
Line regulation	For Vin change of 1%			1.2	%
Load regulation	10% to 100% full load		10	15	%
Output voltage accuracy	See tolerance envelope graph				
Temperature drift	100% full load			0.03	%/°C
Output ripple & noise	20Hz-300KHz bandwidth		50	75	mVp-p
Switching frequency	Full load, nominal input	100	150	200	KHz

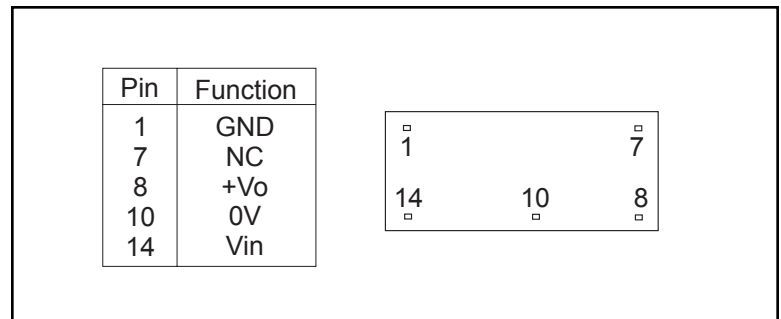
Note:

1. All specifications measured at TA=25°C, humidity<75%, nominal input voltage and rated output load unless otherwise specified.

### TYPICAL CHARACTERISTICS



### PIN CONNECTIONS

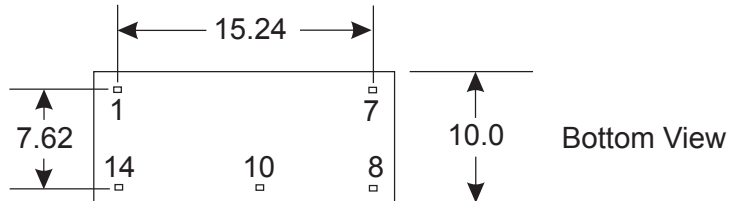
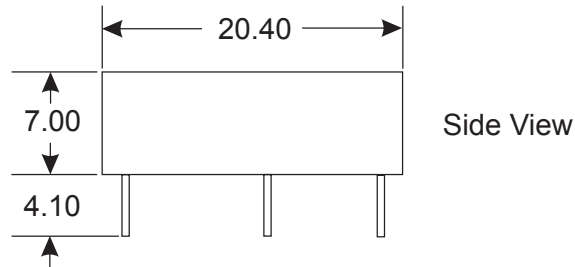


## CTDD2010DF-S

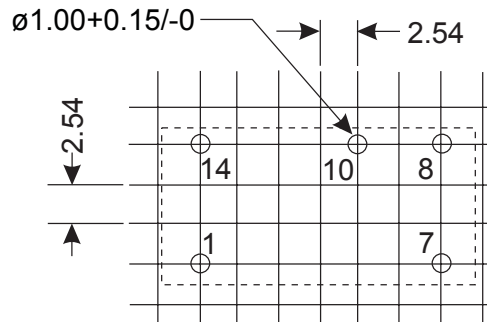
Fixed Input Isolated & Unregulated  
1W Output, Single Output

### OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

#### CTDD2010DF-S PACKAGE



#### CTDD2010DF-S FOOTPRINT



Note: All pins on a 2.54mm pitch; All pin diameters are 0.50mm; all dimensions in mm