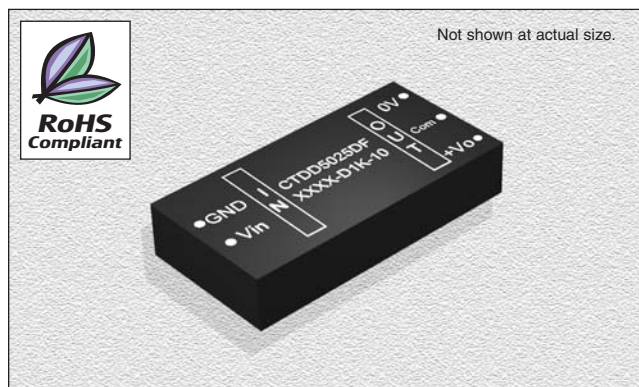


## CTDD5025DF-D1K-10 Series

### Wide Input Isolated & Regulated 10W Output, Dual Output



### FEATURES

- Efficiency:** To 85%
- Temperature Range:** -40°C to +85°C
- I/O-Isolation:** 1KVDC
- Case Size:** 50.7(L). \*25.4(W)\*10.2(H) mm.
- Miscellaneous:** Wide (2:1) Input Range. No heat sink required. Industry Standard Pin out. Dual Output.
- Samples available.**

### CHARACTERISTICS

- Output Short Circuit Protection:** Continuous
- Temperature Rise at Full Load:** 30°C (Typ.)
- Cooling:** Free air convection
- No Load, Power Consumption:** 500mW (typical)
- 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:** Metal
- MTBF:** >3,500,000 hours
- Miscellaneous:** RoHS Compliant.

### SPECIFICATIONS

Part Number	Vin Nom. (VDC)	Input Range (VDC)	Vin Max.* (VDC)	Vout (VDC)	Iout Max. (mA)	Iout Min**. (mA)	Effi. Typ. (%)
CTDD5025DF-2405-D1K-10	24	18-36	40	±5	±1000	±100	75
CTDD5025DF-2412-D1K-10	24	18-36	40	±12	±420	±42	78
CTDD5025DF-2415-D1K-10	24	18-36	40	±15	±330	±33	82
CTDD5025DF-2424-D1K-10	24	18-36	40	±24	±210	±21	85
CTDD5025DF-4805-D1K-10	48	36-72	80	±5	±1000	±100	78
CTDD5025DF-4812-D1K-10	48	36-72	80	±12	±420	±42	81
CTDD5025DF-4815-D1K-10	48	36-72	80	±15	±330	±33	84
CTDD5025DF-4824-D1K-10	48	36-72	80	±24	±210	±21	85

\*If Input voltage above specified may cause permanent damage to the device  
\*\*The load should not be less than 10%, otherwise ripple will increase dramatically

### ISOLATION SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
Isolation Voltage	Flash tested for 1 minute	1000			VDC
Isolation Resistance	Test at 500VDC	1000			MΩ

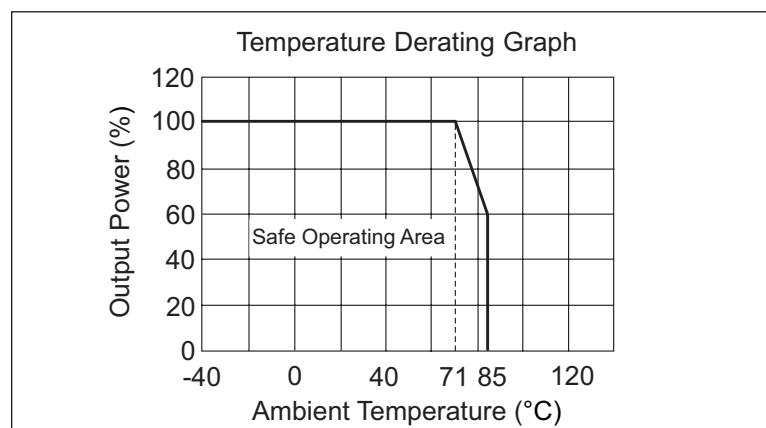
### OUTPUT SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
10W Output Power				10	W
Output voltage accuracy	Refer to Recommended Circuit		±1	±3	%
Positive Load Regulation	From 25% to 100% load; Refer to Recommended Circuit		±0.5	±1	%
Negative Load regulation	From 25% to 100% load; Refer to Recommended Circuit		±3	±5	%
Line regulation	Input Voltage from low to high		±0.2	±0.5	%
Temperature drift (Vout)	Refer to Temp. Derating Graph			0.02	%/°C
Ripple	20Hz to 300KHz Bandwidth		30	50	mVp-p
Noise	DC-20MHz Bandwidth		100	300	mVp-p
Switching frequency	100% load, nominal input voltage		300		KHz

Note:

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

### TYPICAL CHARACTERISTICS



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## CTDD5025DF-D1K-10 Series

Wide Input Isolated & Regulated  
10W Output, Dual Output

### OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

CTDD5025DF-D1K-10 Package

CTDD5025DF-D1K-10 Footprint

Note: All Pins on a 2.54m pitch; all pin diameters are 0.80mm(tolerance  $\pm 25$ ) ; all dimensions in mm.

### PIN CONNECTIONS

Bottom View

Pin	Function
1	GND
2	Vin
3	+Vo
4	COM
5	-Vo

### RECOMMENDED CIRCUIT

All the CTDD5025DF-D1K-10 Series have been tested according to the following recommended testing circuit before leaving factory. This series should be tested under load. Never be tested under no load (See figure 1). When it is used in unregulated power supply, be sure that the fluctuating range of the power supply and the rippled voltage do not exceed the module standard. Input current of power supply should afford the startup current of this kind of DC/DC module. (See figure 2)

External Capacitor Table (table 1)

Vin	Cin	Vout	Cout
12V	100 $\mu$ F	5V	100 $\mu$ F each 1A Current
24V	100 $\mu$ F	12V	
48V	100 $\mu$ F	15V	
		24V	

Figure 1

Figure 2

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