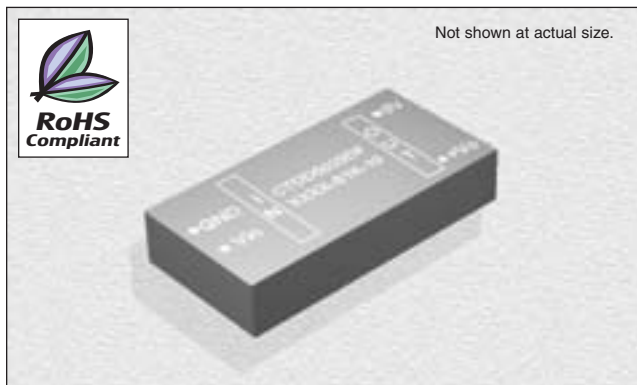


CTDD5025DF-S1K-10M

Series

Wide Input Isolated & Regulated
10W Output, Single 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. Metal Case Package. No heat sink required. Industry Standard Pinout. Single 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-1205-S1K-10M	12	9-18	20	5	2000	200	75
CTDD5025DF-1212-S1K-10M	12	9-18	20	12	830	83	77
CTDD5025DF-1215-S1K-10M	12	9-18	20	15	660	66	79
CTDD5025DF-1224-S1K-10M	12	9-18	20	24	420	42	81
CTDD5025DF-2405-S1K-10M	24	18-36	40	5	2000	200	75
CTDD5025DF-2412-S1K-10M	24	18-36	40	12	830	83	78
CTDD5025DF-2415-S1K-10M	24	18-36	40	15	660	66	82
CTDD5025DF-2424-S1K-10M	24	18-36	40	24	420	42	85
CTDD5025DF-4805-S1K-10M	48	36-72	80	5	2000	200	78
CTDD5025DF-4812-S1K-10M	48	36-72	80	12	830	83	81
CTDD5025DF-4815-S1K-10M	48	36-72	80	15	660	66	84
CTDD5025DF-4824-S1K-10M	48	36-72	80	24	420	42	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

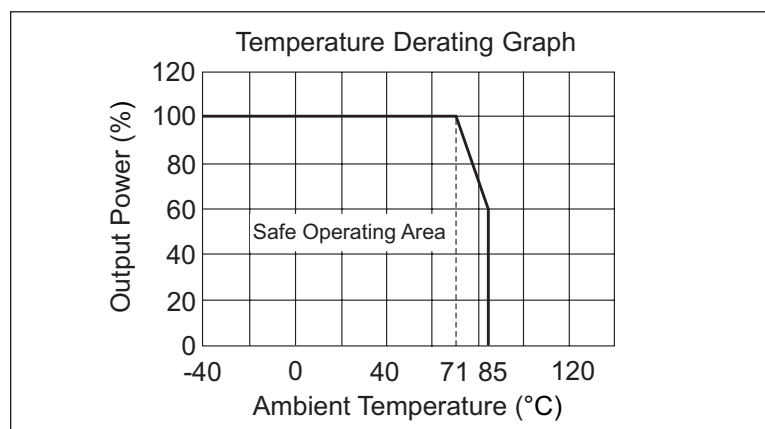
OUTPUT SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
10W Output Power		1		10	W
Output voltage accuracy	Refer to Recommended Circuit		±1	±3	
Load regulation	From 25% to 100% load		±0.5	±1	%
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



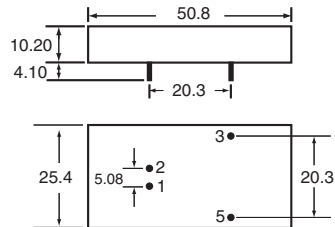
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CTDD5025DF-S1K-10M Series

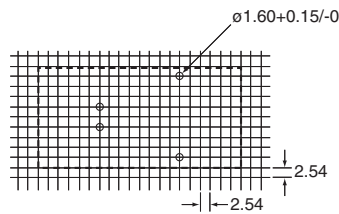
Wide Input Isolated & Regulated
10W Output, Single Output

OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

CTDD5025DF-S1K-10M Package



CTDD5025DF-S1K-10M Footprint



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

PIN CONNECTIONS

Bottom View



Pin	Function
1	GND
2	V _{in}
3	+V _o
5	0V

RECOMMENDED CIRCUIT

All the CTDD5025DF-S1K-10M 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)

V _{in}	C _{in}	V _{out}	C _{out}
12V	100μF	5V	100μF each 1A Current
24V	100μF	12V	
48V	100μF	15V	
		24V	

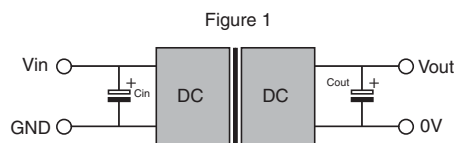
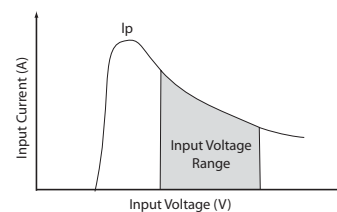


Figure 2



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