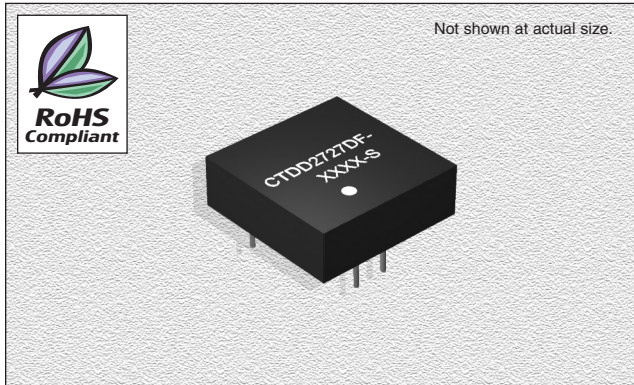


CTDD2727DF-S Series

Wide Input Regulated & Non-Isolated 3W~9W Output, Single Output



FEATURES

- Efficiency:** To 85%
- Temperature Range:** -20°C to +71°C
- Package:** UL94-V0
- Miscellaneous:** Wide (2:1) Input Range. No heat sink required. Industry Standard Pinout. Single Output. Custom service available.
- 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:** -20°C to +71°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:** >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. (%)
CTDD2727DF-0305-S-3	3.3	2.7-5.4	5.4	5	150	15	80
CTDD2727DF-0712-S-3	7.2	6.4-8.4	10	12	250	25	81
CTDD2727DF-0724-S-3	7.2	6.4-8.4	10	24	100	10	82
CTDD2727DF-1203-S-3	12	9-18	20	3.3	900	90	79
CTDD2727DF-1205-S-3	12	9-18	20	5	600	60	81
CTDD2727DF-2403-S-3	24	18-35	35	3.3	900	90	79
CTDD2727DF-2405-S-3	24	18-35	35	5	600	60	80
CTDD2727DF-0705-S-5	7.2	6.4-8.4	10	5	1000	100	85
CTDD2727DF-0712-S-5	7.2	6.4-8.4	10	12	417	42	85
CTDD2727DF-1205-S-5	12	9-18	20	5	1000	100	85
CTDD2727DF-1209-S-5	12	9-18	20	9	550	55	87
CTDD2727DF-2405-S-5	24	18-35	35	5	1000	100	85
CTDD2727DF-0712-S-9	7.2	6.4-8.4	10	12	750	75	86

*If Input voltage above specified may cause permanent damage to the device

ISOLATION SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
Isolation Voltage	Flash tested for 1 minute	0			VDC
Isolation Resistance	Test at 500VDC	0			MΩ

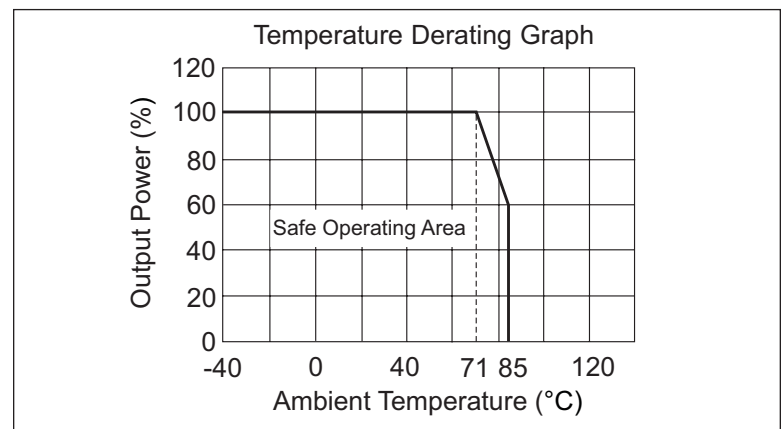
OUTPUT SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
3W Output Power		0.3		3	W
Positive voltage accuracy	Refer to Recommended Circuit			±3	%
Load regulation	From 10% to 100% load			±0.5	%
Line regulation	Input Voltage from low to high			±0.3	%
Temperature drift (Vout)	Refer to Temp. Derating Graph			0.03	%/°C
Ripple	20Hz to 300kHz Bandwidth		30	50	mVp-p
Noise	DC-20MHz Bandwidth		80	150	mVp-p
Switching frequency	100% load, nominal input voltage	100		400	KHz

Note:

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

TYPICAL CHARACTERISTICS



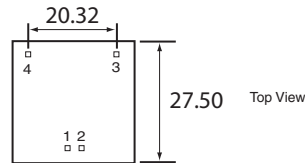
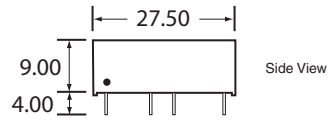
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CTDD2727DF-S Series

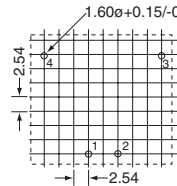
Wide Input Regulated & Non-Isolated
3W~10W Output, Single Output

OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

CTDD2727DF-S Package



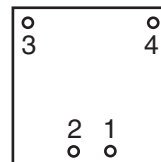
CTDD2727DF-S Footprint



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

PIN CONNECTIONS

Pin	Function
1	COM
2	Vin
3	+Vo
4	NC



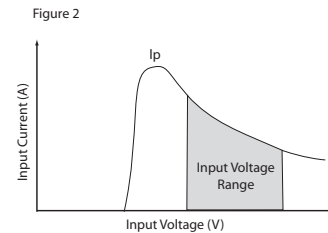
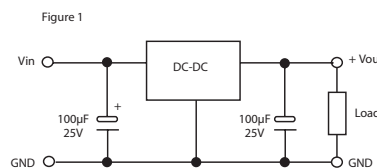
Bottom View

RECOMMENDED CIRCUIT

All the CTDD2727DF-S 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 & 2). If you want to further decrease the input/output ripple, you can increase capacitance properly or choose capacitors with low ESR. However, the capacitance should not be too high (See table 1). If you want to use the products in high EMI, please choose our metal packaged products.

External Capacitor Table (table 1)

Vin	C _{in}	C _{out} (0+70°C)	C _{out} (-40+85°C)
5V & 12V	100μF	100μF (electrolytic capacitor)	47μF (tantalum capacitor)
24V & 48V	10μF		



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