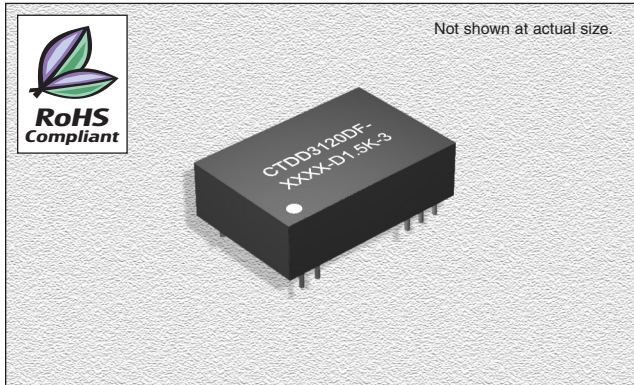


CTDD3120DF-D1.5K-3

Series

4:1 Wide Input Isolated & Regulated
3W Output, Dual Output



FEATURES

- Efficiency:** To 78%
- Temperature Range:** -40°C to +85°C
- Isolation:** 1.5KVDC
- Package:** UL94-V0
- Miscellaneous:** Wide (4:1) Input Range. Dual Output. No heat sink required. Short Circuit Protection. Custom service available. Samples available.

CHARACTERISTICS

- Output Short Circuit Protection:** Continuous Automatic Recovery.
- Temperature Rise at Full Load:** 15°C (Typ.)
- Cooling:** Free air convection
- No Load, Power Consumption:** 200mW (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:** Plastic (UL94-V0)
- MTBF:** >1,000,000 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. (%)
CTDD3120DF-2405-D1.5K-3	24	9-36	40	±5	±300	±30	72
CTDD3120DF-2412-D1.5K-3	24	9-36	40	±12	±125	±12	78
CTDD3120DF-2415-D1.5K-3	24	9-36	40	±15	±100	±10	76
CTDD3120DF-4805-D1.5K-3	48	18-72	80	±5	±300	±30	72
CTDD3120DF-4812-D1.5K-3	48	18-72	80	±12	±125	±12	78
CTDD3120DF-4815-D1.5K-3	48	18-72	80	±15	±100	±10	76

*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	1500			VDC
Isolation Resistance	Test at 500VDC	1000			MΩ

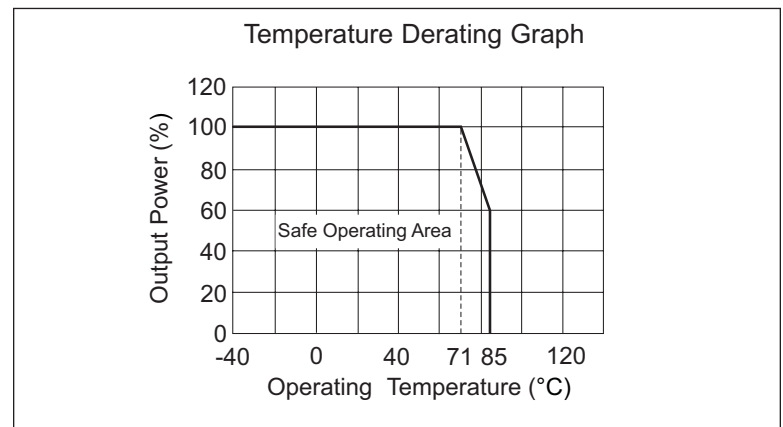
OUTPUT SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
3W Output Power		0.3		3	W
Voltage accuracy	Refer to Recommended Circuit		±1	±3	%
Load regulation	From 10% 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			±0.03	%/°C
Ripple	20MHz Bandwidth			50	mVp-p
Noise	20MHz Bandwidth		50	150	mVp-p
Switching frequency	100% load, nominal input voltage		300 (PFM)		KHz

Note:

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

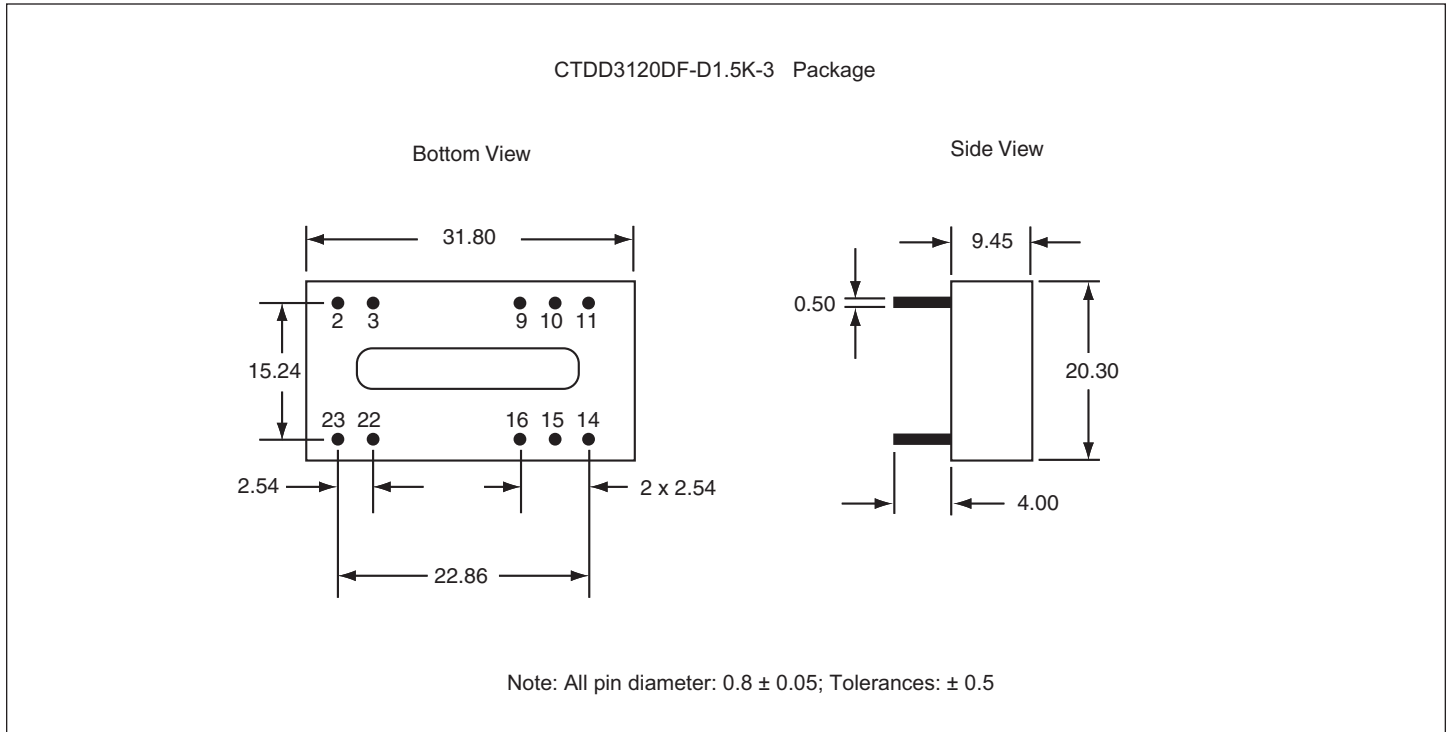
TYPICAL CHARACTERISTICS



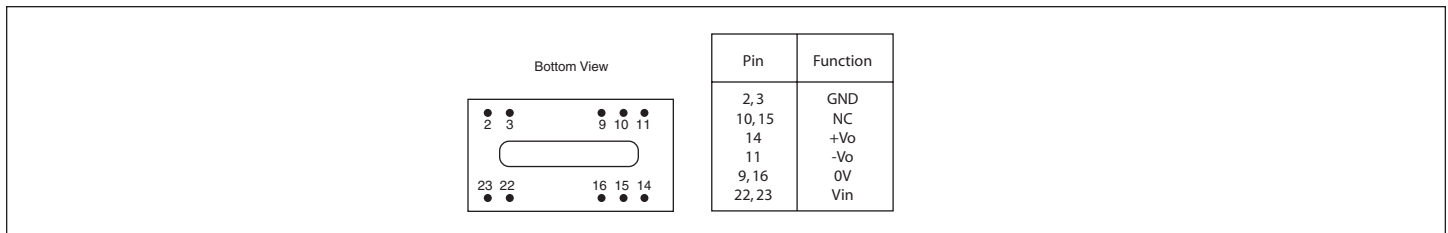
CTDD3120DF-D1.5K-3 Series

4:1 Wide Input Isolated & Regulated
3W Output, Dual Output

OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



PIN CONNECTIONS



RECOMMENDED CIRCUIT

All the CTDD3120DF-D1.5K-3 Series have been tested according to the following recommended testing circuit before leaving factory. This series should be tested under load (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)
24V & 48V	10μF - 47μF	100μF (electrolytic capacitor)	47μF (tantalum capacitor)

Figure 1

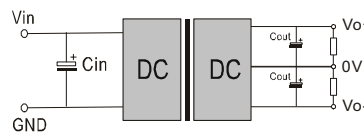
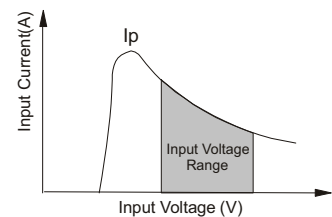


Figure 2



08.13.07