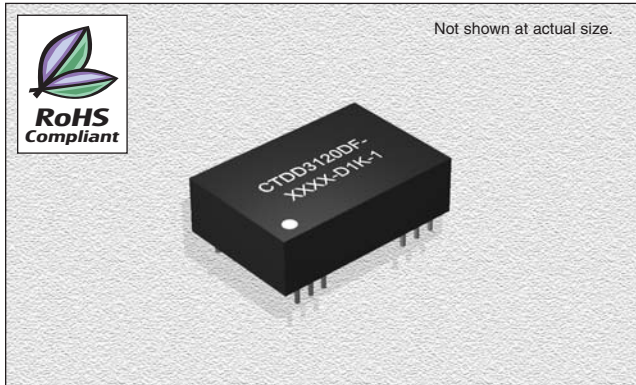


CTDD3120DF-D1K-1 Series

Fixed Input Isolated & Regulated
1W Output, Dual Output



FEATURES

- Efficiency:** To 73%
- Temperature Range:** -40°C to +85°C
- Isolation:** 1KVDC
- Package:** UL94-V0
- Miscellaneous:** No heat sink required. No external components required. Industry standard pinout. Dual Output Voltage. Small Footprint. Dip package style. Power Density 0.16W/cm³. Custom service available.
- Samples available.**

CHARACTERISTICS

- Short Circuit Protection:** 1 second
- Temperature Rise at Full Load:** 25°C Max. 15°C Typ.
- Cooling:** Free air convection
- 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:** >3,500,000 hours
- Miscellaneous:** RoHS Compliant.

SPECIFICATIONS

| Part Number | Vin Nom. (VDC) | Vin Range (VDC) | Voltage Out (VDC) | Io Max. (mA) | Io Min. (mA) | Effi. Typ. (%) |
|-----------------------|----------------|-----------------|-------------------|--------------|--------------|----------------|
| CTDD3120DF-0505-D1K-1 | 5 | 4.75-5.25 | ±5 | ±100 | ±10 | 69 |
| CTDD3120DF-0509-D1K-1 | 5 | 4.75-5.25 | ±9 | ±56 | ±6 | 70 |
| CTDD3120DF-0512-D1K-1 | 5 | 4.75-5.25 | ±12 | ±42 | ±4 | 72 |
| CTDD3120DF-0515-D1K-1 | 5 | 4.75-5.25 | ±15 | ±33 | ±4 | 72 |
| CTDD3120DF-1205-D1K-1 | 12 | 11.4-12.6 | ±5 | ±100 | ±10 | 70 |
| CTDD3120DF-1209-D1K-1 | 12 | 11.4-12.6 | ±9 | ±56 | ±6 | 72 |
| CTDD3120DF-1212-D1K-1 | 12 | 11.4-12.6 | ±12 | ±42 | ±5 | 73 |
| CTDD3120DF-1215-D1K-1 | 12 | 11.4-12.6 | ±15 | ±33 | ±4 | 73 |
| CTDD3120DF-2405-D1K-1 | 24 | 22.8-25.2 | ±5 | ±100 | ±10 | 72 |
| CTDD3120DF-2409-D1K-1 | 24 | 22.8-25.2 | ±9 | ±56 | ±6 | 72 |
| CTDD3120DF-2412-D1K-1 | 24 | 22.8-25.2 | ±12 | ±42 | ±4 | 73 |
| CTDD3120DF-2415-D1K-1 | 24 | 22.8-25.2 | ±15 | ±33 | ±4 | 73 |

ISOLATION SPECIFICATIONS

| Item | Test Condition | MIN | TYP | MAX | Units |
|----------------------|---------------------|------|-----|-----|-------|
| Isolation Voltage | Tested for 1 minute | 1000 | | | VDC |
| Isolation Resistance | Test at 500VDC | 1000 | | | MΩ |

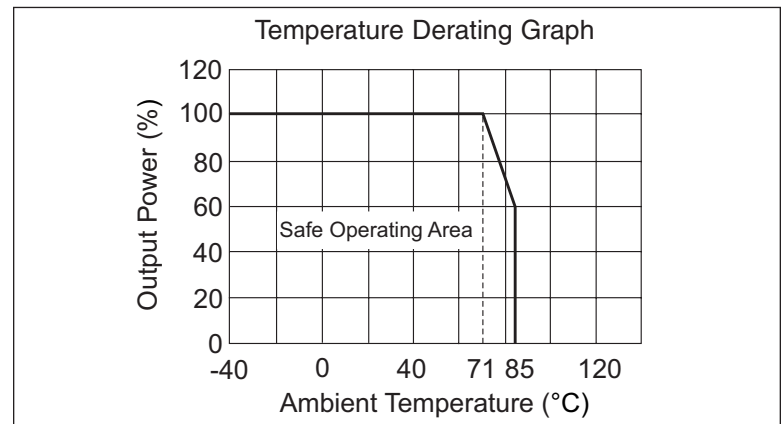
OUTPUT SPECIFICATIONS

| Item | Test Condition | MIN | TYP | MAX | Units |
|-------------------------|------------------------------|-----|-----|------|-------|
| Output Power | | 0.1 | | 1 | W |
| Line regulation | For Vin change of 5% | | | 0.25 | % |
| Load regulation | 10% to 100% full load | | | 1 | % |
| Output voltage accuracy | See tolerance envelope graph | | | ±3 | |
| Temperature drift | 100% full load | | | 0.03 | %/°C |
| Output ripple | 20MHz Bandwidth | | 10 | 15 | mVp-p |
| Switching frequency | Full load, nominal input | | 100 | | KHz |

Note:

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

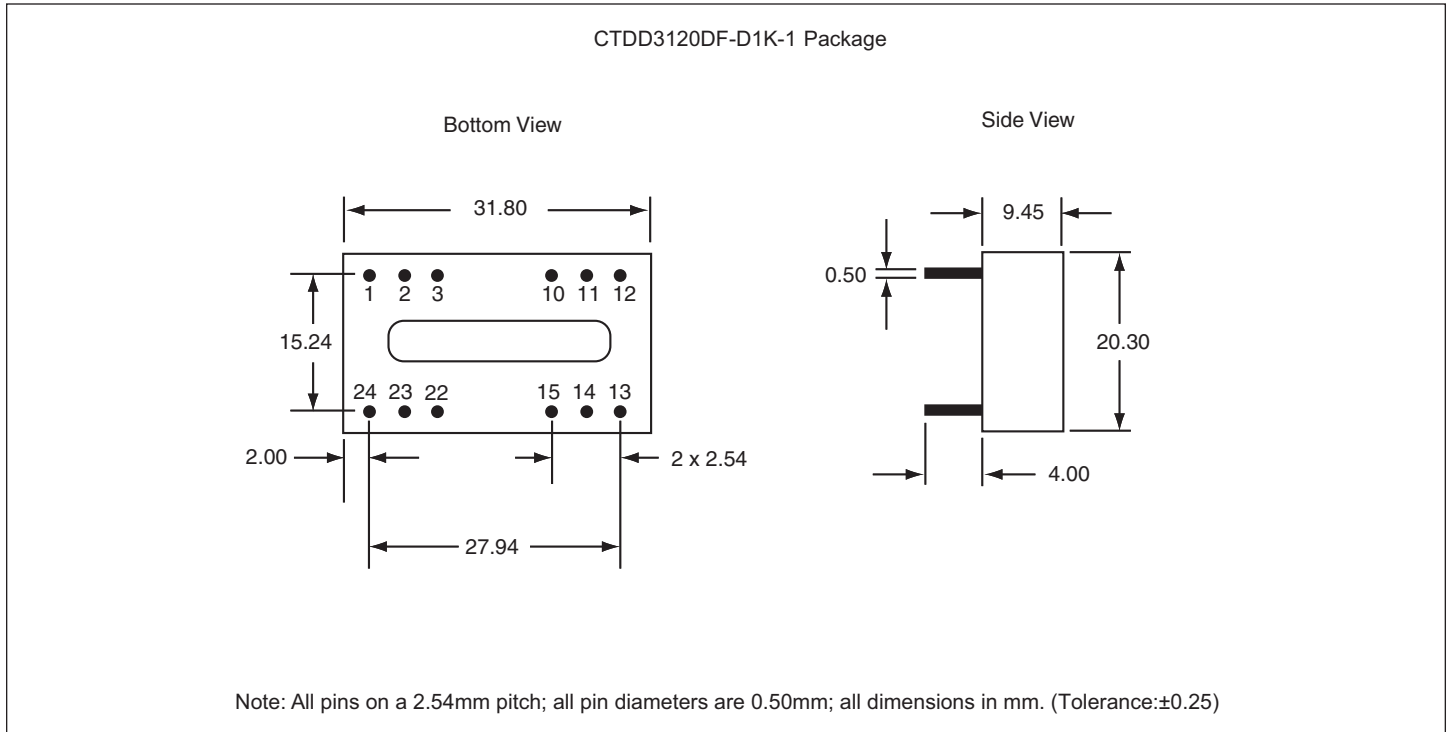
TYPICAL CHARACTERISTICS



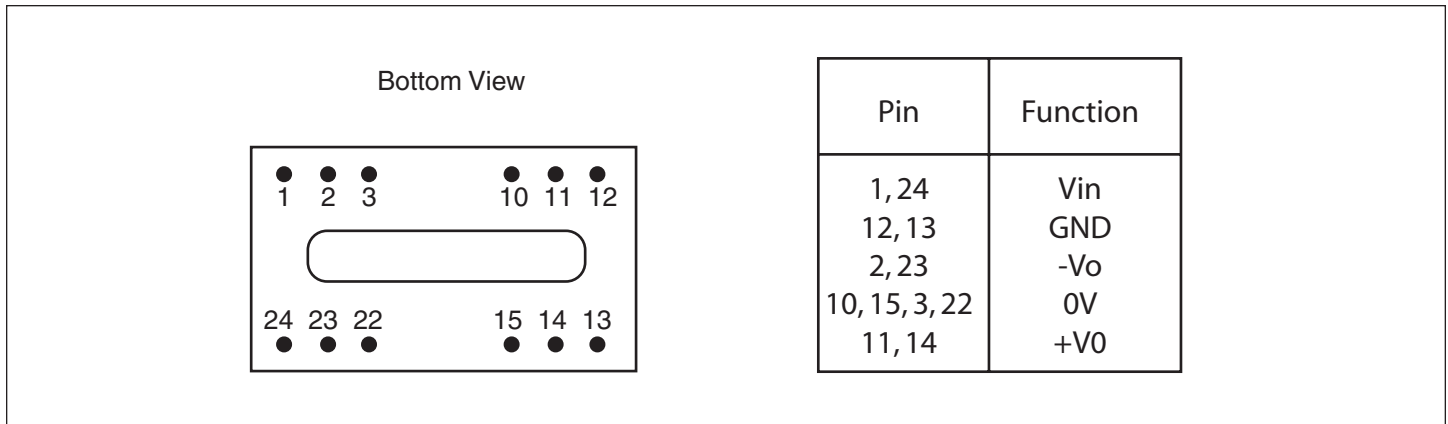
CTDD3120DF-D1K-1 Series

Fixed Input Isolated & Regulated
1W Output, Dual Output

OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



PIN CONNECTIONS



12.13.06