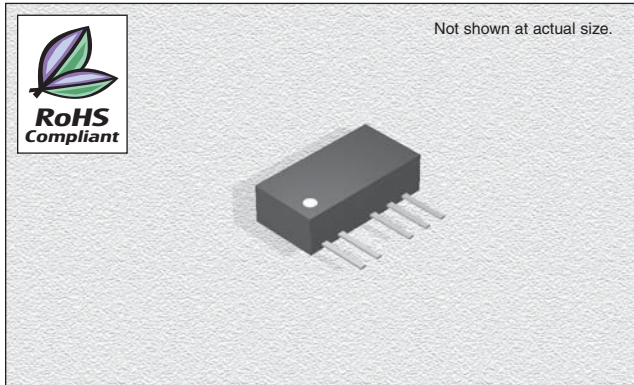


## CTDD1605SF-DU3K-1 Series

Fixed Input Isolated & Unregulated  
1W Output, Dual Output



### FEATURES

- Efficiency:** To 81%
- Temperature Range:** -40°C to +85°C
- Isolation:** 3KVDC
- Power Density:** 0.85W/cm<sup>3</sup>
- Package:** UL94-V0
- Miscellaneous:** No heat sink required. No external components required. Industry standard pinout. Dual Output Voltage. Fully Encapsulated. PCB Mounting. Fixed Input Voltage. Small footprint. 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
- No-load Power Consumption:** 10% nominal power (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:** >3,500,000 hours

### SPECIFICATIONS

Part Number	Vin Nom. (VDC)	Input Range (VDC)	Vout (VDC)	Iout Max. (mA)	Iout Min. (mA)	Effi. Typ. (%)
CTDD1605SF-0505-DU3K-1	5	4.5-5.5	±5	±100	±10	78
CTDD1605SF-0509-DU3K-1	5	4.5-5.5	±9	±56	±6	78
CTDD1605SF-0512-DU3K-1	5	4.5-5.5	±12	±42	±5	80
CTDD1605SF-0515-DU3K-1	5	4.5-5.5	±15	±33	±4	81
CTDD1605SF-1205-DU3K-1	12	10.8-13.2	±5	±100	±10	79
CTDD1605SF-1209-DU3K-1	12	10.8-13.2	±9	±56	±6	79
CTDD1605SF-1212-DU3K-1	12	10.8-13.2	±12	±42	±5	81
CTDD1605SF-1215-DU3K-1	12	10.8-13.2	±15	±33	±4	81
CTDD1605SF-2405-DU3K-1	24	21.6-26.4	±5	±100	±10	79
CTDD1605SF-2409-DU3K-1	24	21.6-26.4	±9	±56	±6	80
CTDD1605SF-2412-DU3K-1	24	21.6-26.4	±12	±42	±5	80
CTDD1605SF-2415-DU3K-1	24	21.6-26.4	±15	±33	±4	80

### ISOLATION SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
Isolation Voltage	Tested for 1 minute	3000			VDC
Isolation Resistance	Test at 500VDC	1000			MΩ

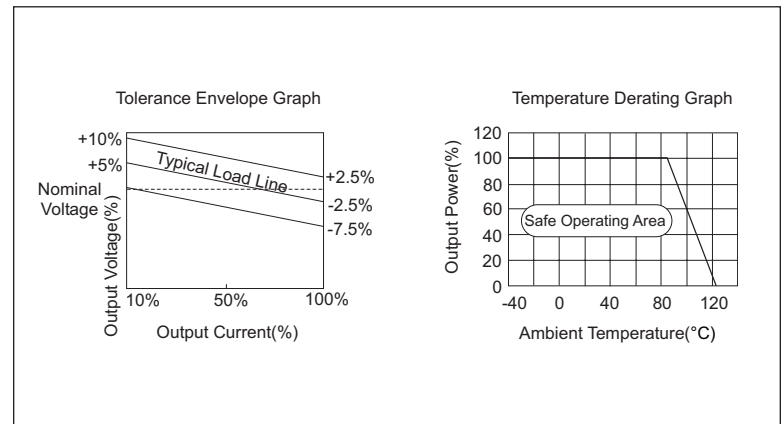
### OUTPUT SPECIFICATIONS

Item	Test Condition	MIN	TYP	MAX	Units
Output Power		0.1		1	W
Line regulation	For Vin change of 1%			1.2	%
Load regulation	10% to 100% full load		10	15	%
Output voltage accuracy	See tolerance envelope graph				
Temperature drift	100% full load			0.03	%/°C
Output ripple	20Hz-300KHz Bandwidth		50	75	mVp-p
Switching frequency	Full load, nominal input	100	150	200	KHz

Note:

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

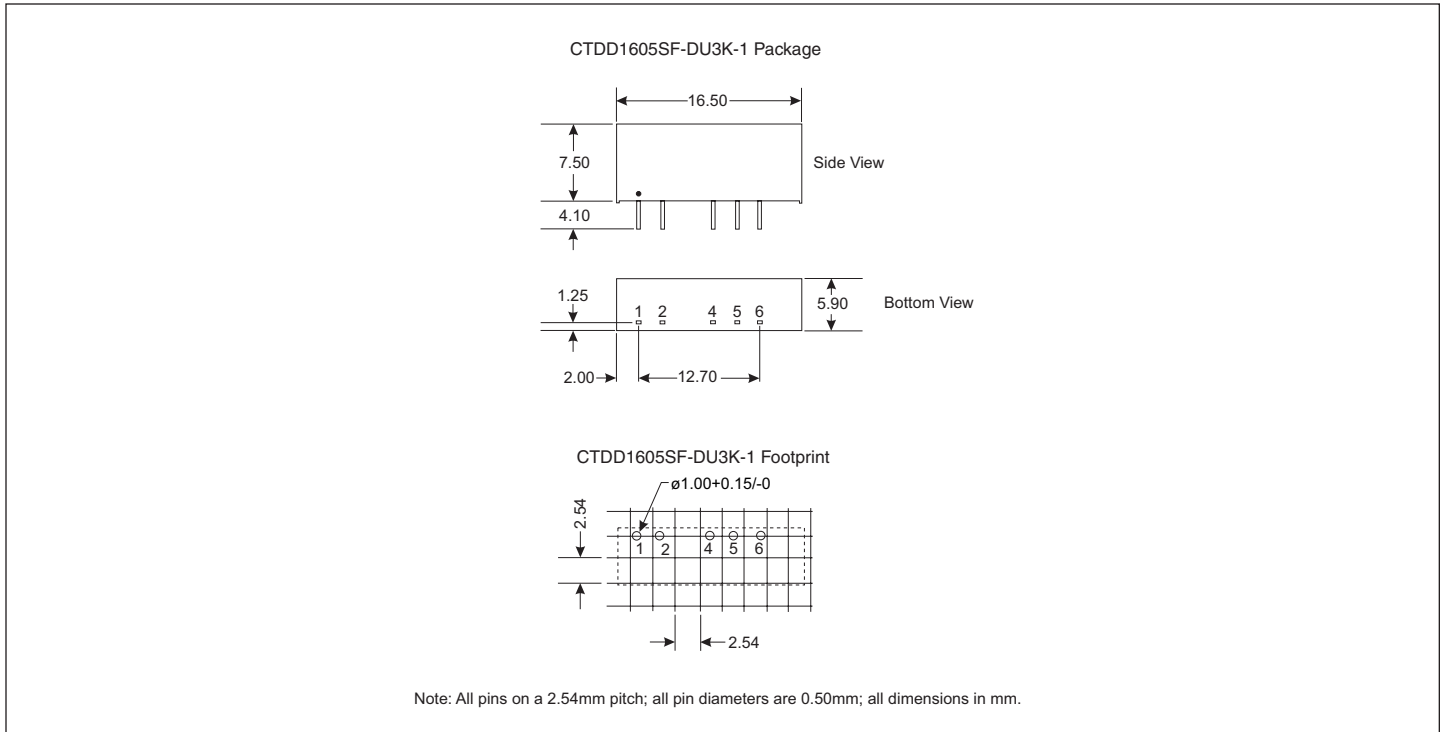
### TYPICAL CHARACTERISTICS



## CTDD1605SF-DU3K-1 Series

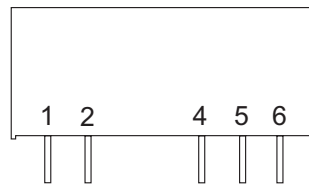
Fixed Input Isolated & Unregulated  
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### OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



### PIN CONNECTIONS

Pin	Function
1	V <sub>in</sub>
2	GND
4	-V <sub>o</sub>
5	0V
6	+V <sub>o</sub>



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