

Features

- ◆ Highest power density in DIP 24 package
- ◆ Shielded metal case with isolated baseplate
- ◆ Very high efficiency up to 90%
- ◆ Ultra wide 4:1 input ranges
- ◆ No minimum load required
- ◆ Input filter meets EN 55022 class A without external components
- ◆ I/O isolation voltage 1500 VDC
- ◆ Operating temp. range : -40°C to +85°C
- ◆ Remote On/Off control
- ◆ Industry standard pinout
- ◆ 3-year product warranty



The THD-15WIN series models provide 15 Watt output power out of a very compact shielded metal case that occupies only 1 inch² of board space. The converters work with a high efficiency over the full load range and draw a very low input current at no load conditions. All models have a wide 4:1 input voltage range and a precisely regulated output voltage.

Typical applications for these converters are mobile equipment, instrumentation, distributed power architectures in communication and industrial electronics and everywhere where space on PCB is critical.

Models

Order code	Input voltage range	Output voltage	Output current max.	Efficiency typ.
THD 15-2410WIN	9 – 36 VDC (24 VDC nominal)	3.3 VDC	4'000 mA	88 %
THD 15-2411WIN		5.1 VDC	3'000 mA	90 %
THD 15-2412WIN		12 VDC	1'250 mA	90 %
THD 15-2413WIN		15 VDC	1'000 mA	90 %
THD 15-2421WIN		±5 VDC	±1'500 mA	86 %
THD 15-2422WIN		±12 VDC	±625 mA	89 %
THD 15-2423WIN		±15 VDC	±500 mA	90 %
THD 15-4810WIN	18 – 75 VDC (48 VDC nominal)	3.3 VDC	4'000 mA	89 %
THD 15-4811WIN		5.1 VDC	3'000 mA	89 %
THD 15-4812WIN		12 VDC	1'250 mA	90 %
THD 15-4813WIN		15 VDC	1'000 mA	90 %
THD 15-4821WIN		±5 VDC	±1'500 mA	86 %
THD 15-4822WIN		±12 VDC	±625 mA	89 %
THD 15-4823WIN		±15 VDC	±500 mA	90 %

General Specifications

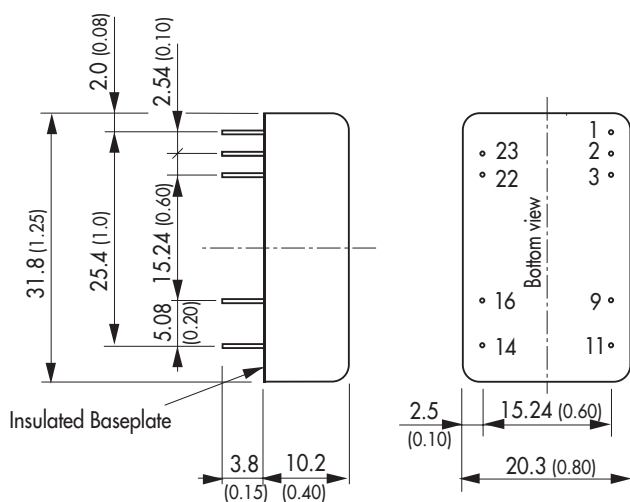
Temperature ranges	- Operating - Case temperature - Storage	-40°C to +85°C (with derating) +105°C max. -55°C to +105°C
Power derating		3.2 %/K above 65°C
Thermal inpedance	- Natural convection	20°C/W
Humidity (non condensing)		5 % to 95 % rel H max.
Reliability, calculated MTF (MIL-HDBK-217F, at +25°C, ground benign)		>410'000 h
Isolation voltage (60sec.)	- Input/Output	1'500 VDC
Isolation capacitance	- Input/Output	2'000 pF typ.
Isolation resistance	- Input/Output (500 VDC)	>1'000 MOhm
Remote On/Off	- On: - Off: - Off idle current:	3.0 ... 12 VDC or open circuit 0 ... 1.2 VDC or short circuit pin 1 and pin 2 2.5 mA
Switching frequency		330 kHz typ. (pulse width modulation PWM)
Vibration and thermal shock		MIL-STD-810E
Safety standards		UL/cUL 60950-1, IEC/EN 60950-1
Safety approvals (entry pending)		www.ul.com -> certifications -> File E188913
Environmental compliance	- Reach - RoHS	www.tracopower.com/products/thd15win-reach.pdf RoHS directive 2002/95/EC

Application note: www.tracopower.com/products/thd15win-application.pdf

Physical Specifications

Casing material	nickel coated copper
Baseplate	non conductive FR4
Potting material	silicon (UL 94V-0 rated)
Weight	14.4 g (0.51oz)
Soldering temperature	max. 265°C / 10sec.

Outline Dimensions



Specifications can be changed any time without notice.

Pin-Out

Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin (GND)	-Vin (GND)
3	-Vin (GND)	-Vin (GND)
9	NC	Common
11	NC.	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)

Dimensions in [mm], () = Inch
Pin diameter ø 1.0 (0.04)
Pin pitch tolerances: ±0.35 (±0.014)
Tolerances: ±0.5 (±0.02)