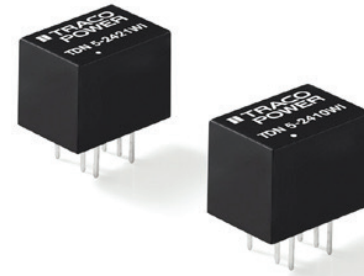


- Ultra compact DIP package
0.52 × 0.36 × 0.40 inch
- I/O-isolation 1'500 VDC
- Fully regulated outputs
- Operating temperature range
-40°C to +75°C
- Short circuit protection
- Remote On/Off
- 3-year product warranty



The TDN 5WI Series redefines the power density of high performance DC/DC converters. The cubical package of only 1.23 cm³ encloses a sophisticated circuit which provides 5 Watt output power. They operate up to 50°C environment temperature at full load or up to 75°C with a 50% load de-rating. With 1500 VDC I/O-isolation voltage, external On/Off, and short current protection they cover a wide range of application when space is limited. The input of the converters is designed for a wide voltage range (4:1) and minimum load is not required.

Models				
Order code	Input voltage	Output voltage	Output current max.	Efficiency typ.
TDN 5-0910WI	4.5 – 12 VDC (5 VDC nominal)	3.3 VDC	1000 mA	76 %
TDN 5-0911WI		5.0 VDC	1000 mA	80 %
TDN 5-0912WI		12 VDC	420 mA	83 %
TDN 5-0913WI		15 VDC	333 mA	83 %
TDN 5-0915WI		24 VDC	210 mA	83 %
TDN 5-0921WI		± 5.0 VDC	±500 mA	80 %
TDN 5-0922WI		±12 VDC	±210 mA	83 %
TDN 5-0923WI		±15 VDC	±168 mA	83 %
TDN 5-2410WI	9 – 36 VDC (24 VDC nominal)	3.3 VDC	1000 mA	76 %
TDN 5-2411WI		5.0 VDC	1000 mA	80 %
TDN 5-2412WI		12 VDC	420 mA	83 %
TDN 5-2413WI		15 VDC	333 mA	83 %
TDN 5-2415WI		24 VDC	210 mA	83 %
TDN 5-2421WI		± 5.0 VDC	±500 mA	80 %
TDN 5-2422WI		±12 VDC	±210 mA	83 %
TDN 5-2423WI		±15 VDC	±168 mA	84 %
TDN 5-4810WI	18 – 75 VDC (48 VDC nominal)	3.3 VDC	1000 mA	76 %
TDN 5-4811WI		5.0 VDC	1000 mA	81 %
TDN 5-4812WI		12 VDC	420 mA	83 %
TDN 5-4813WI		15 VDC	333 mA	83 %
TDN 5-4815WI		24 VDC	210 mA	83 %
TDN 5-4821WI		± 5.0 VDC	±500 mA	80 %
TDN 5-4822WI		±12 VDC	±210 mA	83 %
TDN 5-4823WI		±15 VDC	±168 mA	84 %

Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.

Click below for more details, to buy on-line or request volume pricing:

<http://power.sager.com/traco-power-tdn5-wi-dc-dc-converter.html>

(866) 588-1750
 power@sager.com
<http://power.sager.com>

Input Specifications

Input current no load	5 Vin models: 80 mA typ. 24 Vin models: 30 mA typ. 48 Vin models: 15 mA typ.
Surge voltage (1 sec. max.)	5 Vin models: 15 V max. 24 Vin models: 50 V max. 48 Vin models: 100 V max.
Reflected ripple current	5 Vin models: 40 mAp-p typ. 24 Vin models: 20 mAp-p typ. 48 Vin models: 15 mAp-p typ.
Conducted noise	EN 55022 class A or B with external components, see supporting documents
ESD (electrostatic discharge)	EN 61000-4-2, air ± 8 kV, contact ± 6 kV, perf. criteria A
Radiated immunity	EN 61000-4-3, 10 V/m, perf. criteria A
Fast transient / surge (with external input capacitor)	EN 61000-4-4, ± 2 kV, perf. criteria A EN 61000-4-5, ± 1 kV perf. criteria A
–external input capacitor	all models: Nippon chemi-con KY 220 μ F/100V
Conducted immunity	EN 61000-4-6, 10 Vrms, perf. criteria A

Output Specifications

Voltage set accuracy	± 1 % max.
Voltage balance (dual output models)	1 % max.
Regulation	– Input variation – Load variation 0 – 100 %
	single output: 0.2 % max. dual output: 1 % max. (balanced load) cross regulation – dual output: 5 % max. (asymmetrical load 25 % / 100 %)
Temperature coefficient	± 0.02 %/K typ.
Ripple and noise (20 MHz Bandwidth)	75 mVp-p typ.
Start up time	– Power ON – Remote ON
	10 ms max. 10 ms max.
Transient response (25% load step change)	500 μ s typ.
Short circuit protection	continuous, automatic recovery
Capacitive load	–Single output
	3.3 VDC models: 4400 μ F max. 5.0 VDC models: 2200 μ F max. 12 VDC models: 1220 μ F max. 15 VDC models: 1000 μ F max. 24 VDC models: 470 μ F max.
	–Dual output
	± 5.0 VDC models: 1000 μ F max. (each output) ± 12 VDC models: 680 μ F max. (each output) $+15$ VDC models: 440 μ F max. (each output)

General Specifications

Temperature ranges	– Operating (convection cooling 20LFM, 0,1m/s) – Case temperature – Storage temperature	–40°C to +75°C +95°C max. –55°C to +125°C
Derating		1.8%/K above 50°C
Humidity (non condensing)		95 % rel H max.
Isolation voltage	– I/O isolation voltage (60 sec.)	1'500 VDC
Isolation capacitance		50 pF max.
Isolation resistance (@ 500 VDC)		>1 Gohm
Reliability, calculated MTBF (MIL-HDBK-217F at +25°C, ground benign)		2'280'000 h

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.

Click below for more details, to buy on-line or request volume pricing:

<http://power.sager.com/traco-power-tdn5-wi-dc-dc-converter.html>

(866) 588-1750
 power@sager.com
<http://power.sager.com>

General Specifications

Switching frequency	100 kHz min. Pulse frequency modulation.
Thermal shock & vibration	MIL-STD-810F
Remote On/Off	-On: open circuit or high impedance -Off: 2 – 4 mA current applied via 1kOhm resistor -Off idle current: 2.5 mA max.
Safety standards	UL 60950-1 IEC/EN 60950-1 - Certification documents see supporting documents
Environmental compliance	- Reach see supporting documents - RoHS RoHS directive 2011/65/EU

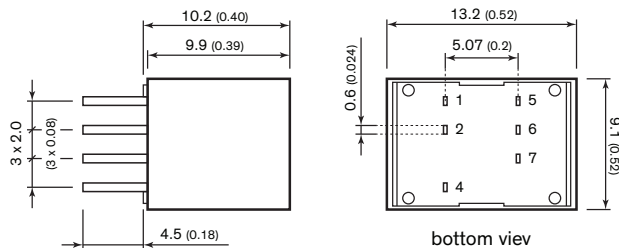
Physical Specifications

Casing material	non-conducting FR4 (UL 94V-0 rated)
Potting material	silicone (UL 94V-0 rated)
Pin material	tinned copper
Package weight	2.7g (0.10oz)
Soldering temperature	max. 260°C / 6 sec

Supporting Documents: www.tracopower.com/overview/tdn5wi

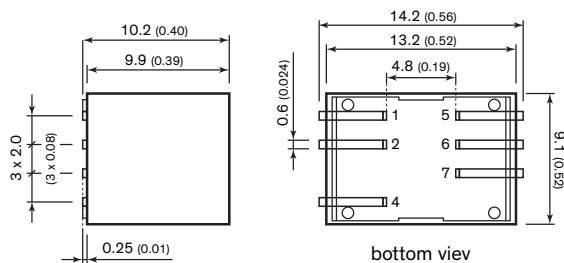
Outline Dimensions

DIP package:



Pin-Out		
Pin	Single	Dual
1	+Vin (Vcc)	+Vin (Vcc)
2	-Vin (GND)	-Vin (GND)
4	On/Off	On/Off
5	no con.	-Vout
6	-Vout	Common
7	+Vout	+Vout

SMD package (on demand):



Dimensions in [mm], () = Inch

Tolerances: x.xx	±0.5 (±0.02)
x.xxx	±0.25 (±0.01)
Pin pitch tolerances	±0.25 (±0.01)
pin dimension tolerance	±0.1 (±0.004)