



**TRUMPower**  
DC/DC CONVERTERS

**TS1-NH Series**  
3KV Isolation, 0.25 to 1 Watt

OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT POWER	*MODEL NUMBER				
			5 VDC IN	12 VDC IN	15 VDC IN	24 VDC IN	48 VDC IN
5 VDC	200 mA	1W	TS1-1S0505NH	TS1-1S1205NH	TS1-1S1505NH	TS1-1S2405NH	TS1-1S4805NH
12 VDC	83 mA	1W	TS1-1S0512NH	TS1-1S1212NH	TS1-1S1512NH	TS1-1S2412NH	TS1-1S4812NH
15 VDC	66 mA	1W	TS1-1S0515NH	TS1-1S1215NH	TS1-1S1515NH	TS1-1S2415NH	TS1-1S4815NH
24 VDC	42 mA	1W	TS1-1S0524NH	TS1-1S1224NH	TS1-1S1524NH	TS1-1S2424NH	TS1-1S4824NH

0.25W, 0.5W, 0.75W versions and other input/output combinations are available.  
\* Specify TS1-1QSxxxxNH, TS1-2QSxxxxNH and TS1-3QSxxxxNH for 0.25W, 0.5W and 0.75W respectively.

### ELECTRICAL SPECIFICATIONS

All Specifications Typical @+25°C, Nominal Line, and Full Load Unless Otherwise Noted.

#### INPUT SPECIFICATIONS

Input Voltage Range.....±10%  
Input Filter.....Capacitors

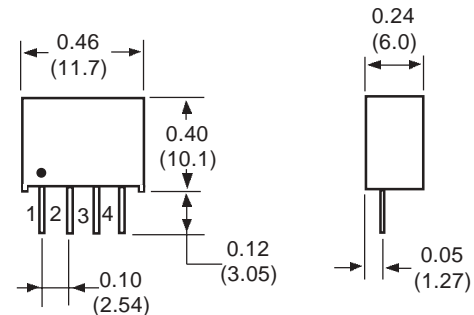
#### OUTPUT SPECIFICATIONS

Voltage Accuracy.....±5%, Max.  
Line Regulation, FL.....±1.2%/V<sub>in</sub>, Max.  
Load Regulation, FL-20%FL.....±8%, Max.  
Ripple and Noise, 20MHz BW.....100 mVp-p, Max.  
Short Circuit Protection.....Momentary

#### GENERAL SPECIFICATIONS

Efficiency.....72 - 80%  
Isolation Voltage, Input to Output.....3,000 VDC  
Isolation Resistance.....10<sup>9</sup> Ohms, Min.  
Switching Frequency.....80 kHz, Min.  
Operating Temperature Range.....-25°C to +71°C  
(Add Suffix "T" for -40 to +85°C Extended Temperature Range.)  
Storage Temperature Range.....-55°C to +125°C  
Cooling.....Free Air Convection  
Weight.....0.1 oz. (2 grams)  
Case Material.....Non-Conductive Black Plastic

PIN CONNECTIONS	
PIN	FUNCTION
1	-V Input
2	+V Input
3	-V Output
4	+V Output



PIN SIZE: 0.02 X 0.01 INCH

ALL DIMENSIONS IN INCHES (mm)