

TRUMPower

DC/DC CONVERTERS

TSC-N Series

7-pin SIP, 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 12 VDC 15 VDC	150 mA 60 mA 50 mA	0.75W 0.75W 0.75W	TSC-3QS0505N TSC-3QS0512N TSC-3QS0515N	TSC-3QS1205N TSC-3QS1212N TSC-3QS1215N	TSC-3QS1505N TSC-3QS1512N TSC-3QS1515N	TSC-3QS2405N TSC-3QS2412N TSC-3QS2415N	TSC-3QS4805N TSC-3QS4812N TSC-3QS4815N
±5 VDC ±12 VDC ±15 VDC	±75 mA ±30 mA ±25 mA	0.75W 0.75W 0.75W	TSC-3QD0505N TSC-3QD0512N TSC-3QD0515N	TSC-3QD1205N TSC-3QD1212N TSC-3QD1215N	TSC-3QD1505N TSC-3QD1512N TSC-3QD1515N	TSC-3QD2405N TSC-3QD2412N TSC-3QD2415N	TSC-3QD4805N TSC-3QD4812N TSC-3QD4815N
3.3 VDC 5 VDC 12 VDC 15 VDC	303 mA 200 mA 84 mA 67 mA	0.85W 1.0W 1.0W 1.0W	TSC-1S053.3N TSC-1S0505N TSC-1S0512N TSC-1S0515N	TSC-1S123.3N TSC-1S1205N TSC-1S1212N TSC-1S1215N	TSC-1S153.3N TSC-1S1505N TSC-1S1512N TSC-1S1515N	TSC-1S243.3N TSC-1S2405N TSC-1S2412N TSC-1S2415N	TSC-1S483.3N TSC-1S4805N TSC-1S4812N TSC-1S4815N
±5 VDC ±12 VDC ±15 VDC	±100 mA ±42 mA ±34 mA	1.0W 1.0W 1.0W	TSC-1D0505N TSC-1D0512N TSC-1D0515N	TSC-1D1205N TSC-1D1212N TSC-1D1215N	TSC-1D1505N TSC-1D1512N TSC-1D1515N	TSC-1D2405N TSC-1D2412N TSC-1D2415N	TSC-1D4805N TSC-1D4812N TSC-1D4815N

0.25W, 0.5W versions and other input/output combinations available.

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

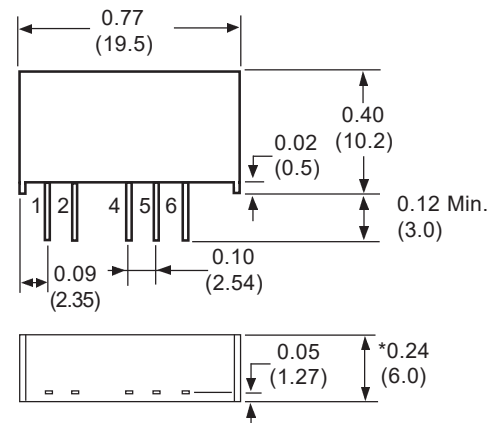
Voltage Accuracy.....±5%, Max.
Line Regulation, FL.....±1.2%/V_{in}, Max.
Load Regulation, FL-20%FL.....±8%, Max.
(For regulated output models, see TSC Series.)
Ripple and Noise, 20MHz BW.....50 mVp-p, Typ.
100 mVp-p, Max.
Short Circuit Protection.....Short Term

GENERAL SPECIFICATIONS

Efficiency.....70 - 85%
Isolation Voltage, Input to Output.....1,000 VDC
(For 3K VDC isolation models, see TSC-NH Series.)
Isolation Resistance.....10⁹ Ohms, Min.
Isolation Capacitance.....80pF
Switching Frequency.....100 kHz, Min.
Operating Temperature, No Derating.....-25°C to +71°C
Storage Temperature Range.....-40°C to +125°C
Cooling.....Free Air Convection
MTBF per MIL-HDBK-217F @25°C.....>2,000k Hours
Weight.....0.1 oz. (3 grams)
Case Material.....Non-Conductive Black Plastic

PIN CONNECTIONS	
PIN	FUNCTION
1	+V Input
2	-V Input
4	-V Output
5	Common*
6	+V Output

*No pin on single output models.



*0.28 (7.1) on 48V input models

PIN SIZE: 0.02 X 0.01 INCH

ALL DIMENSIONS IN INCHES (mm)

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