



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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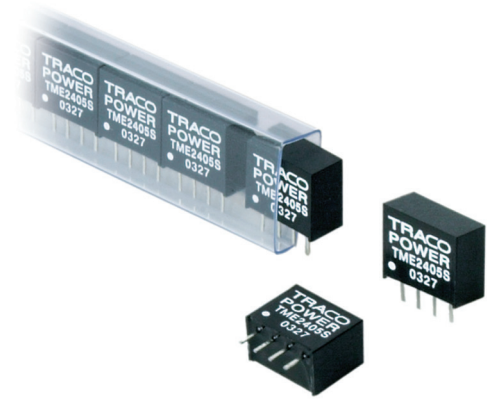
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Features

- ◆ Single-in-line package (SIP)
- ◆ I/O isolation 1'000 VDC
- ◆ High efficiency up to 80%
- ◆ Operating temperature -40°C to $+85^{\circ}\text{C}$
- ◆ Industry standard pinout
- ◆ 100% burn-in (8 h)
- ◆ Lead free design, RoHS compliant
- ◆ 3-year product warranty



The TME series is a range of sub-miniature, isolated DC/DC-converters in a SIP-package, which requires only 0.7 cm² of board space. They provide a cost effective solution to generate supplementary, isolated voltages. Full SMD-design and a 100% production test of parameters ensure a high reliability of this product.

Models				
Ordercode	Input voltage	Output voltage	Output current max.	Efficiency typ.
TME 0303S	3.3 VDC $\pm 10\%$	3.3 VDC	260 mA	74 %
TME 0305S		5.0 VDC	200 mA	77 %
TME 0503S	5 VDC $\pm 10\%$	3.3 VDC	260 mA	72 %
TME 0505S		5 VDC	200 mA	69 %
TME 0509S		9 VDC	110 mA	76 %
TME 0512S		12 VDC	84 mA	77 %
TME 0515S		15 VDC	67 mA	78 %
TME 1205S	12 VDC $\pm 10\%$	5 VDC	200 mA	71 %
TME 1209S		9 VDC	110 mA	77 %
TME 1212S		12 VDC	84 mA	79 %
TME 1215S		15 VDC	67 mA	80 %
TME 2405S	24 VDC $\pm 10\%$	5 VDC	200 mA	70 %
TME 2409S		9 VDC	110 mA	76 %
TME 2412S		12 VDC	84 mA	79 %
TME 2415S		15 VDC	67 mA	79 %

Input Specifications

Input current no load /full load	3.3 Vin models: 35 mA / 370 mA typ. 5 Vin models: 30 mA / 270 mA typ. 12 Vin models: 13 mA / 110 mA typ. 24 Vin models: 7 mA / 55 mA typ.
Surge voltage (1 s max.)	3.3 Vin models: 6 V max. 5 Vin models: 9 V max. 12 Vin models: 18 V max. 24 Vin models: 30 V max.
Reverse polarity input current	0.3 A max.
Reflected input ripple current	can be reduced by ext. 1 – 3.3 µF polyester film capacitor
Input filter	Internal capacitors

Output Specifications

Voltage set accuracy	±1 % typ. / ±3 % max.
Regulation	– Input variation (1 % change of input voltage) – Load variation (20 – 100 %) 1.2 % typ. / 1.5 % max. 4 to 14 % max. (depending on model)
Ripple and noise (20 MHz Bandwidth)	150 mVp-p max.
Temperature coefficient	±0.01 %/K typ. / ±0.02 %/K max.
Short circuit protection	limited 0.5 s max.
Capacitive load	33 µF max.

General Specifications

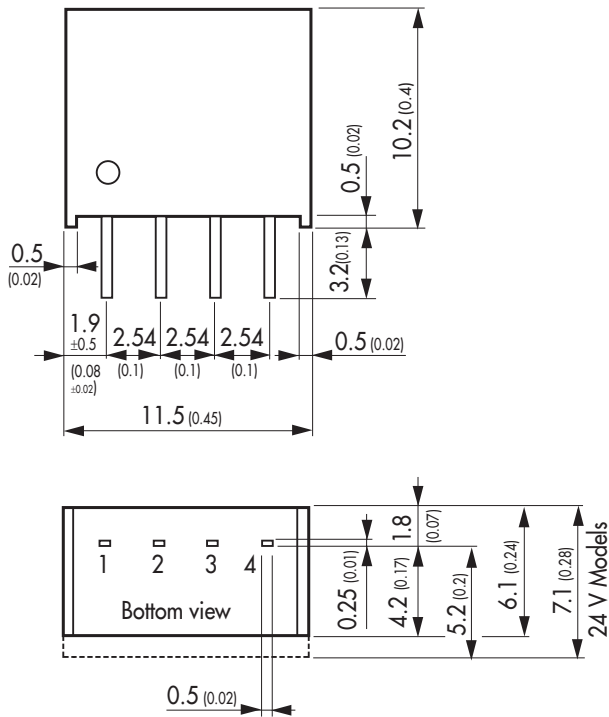
Temperature ranges	– Operating – Case temperature – Storage	–40°C to +85°C +90°C max. –50°C to +125°C
Derating	5 VDC output models: other output models:	3.3 %/K above 70°C 4.0 %/K above 75°C
Humidity (non condensing)		95 % rel H max.
Reliability, calculated MTTF (MIL-HDBK-217F, @+25°C ground benign)		>2'000'000 h
Isolation voltage (60 sec.)	Input/Output	1'000 VDC
Isolation capacity	Input/Output	60 pF typ.
Isolation resistance	Input/Output	>1'000 Mohm
Switching frequency		50 to 110 kHz (Frequency modulation)

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

Physical Specifications

Casing material	non conductive black plastic (UL 94-V0 rated)	
Package weight	3.3 / 5.0 / 12 Vin models 24 Vin models	1.3 g (0.05 oz) 1.7 g (0.06 oz)
Soldering temperature	max. 265°C / 10 s	

Outline Dimensions mm (inches)



Pin-Out	
Pin	Single
1	-Vin (GND)
2	+Vin (Vcc)
3	-Vout
4	+Vout

Tolerances ± 0.25 (± 0.01)
 Pin pitch tolerance ± 0.13 (± 0.005)
 pins ± 0.05 (± 0.002)

Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at www.tracopower.com