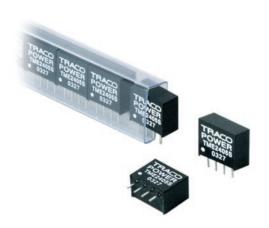


DC/DC Converters

TME Series, 1 Watt

Features

- ◆ Single-in-line package (SIP)
- ◆ I/O isolation 1'000 VDC
- ♦ High efficiency up to 80%
- ◆ Operating temperature -40°C to +85°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 ±10%	3.3 VDC	260 mA	74 %
TME 0305S		5.0 VDC	200 mA	77 %
TME 0503S	5 VDC ±10%	3.3 VDC	260 mA	72 %
TME 0505S		5 VDC	200 mA	70 %
TME 0509S		9 VDC	110 mA	76 %
TME 0512S		12 VDC	80 mA	77 %
TME 0515S		15 VDC	65 mA	78 %
TME 1205S	12 VDC ±10%	5 VDC	200 mA	71 %
TME 1209S		9 VDC	110 mA	77 %
TME 1212S		12 VDC	80 mA	79 %
TME 1215S		15 VDC	65 mA	80 %
TME 2405S	24 VDC ±10%	5 VDC	200 mA	70 %
TME 2409S		9 VDC	110 mA	76 %
TME 2412S		12 VDC	80 mA	79 %
TME 2415S		15 VDC	65 mA	79 %



Input Specifications		
Input current no load /full load	3.3 Vin models: 5 Vin models: 12 Vin models: 24 Vin models:	30 mA / 260 mA typ.
Surge voltage (1 sec. max.)	3.3 Vin models: 5 Vin models: 12 Vin models: 24 Vin models:	6 V max. 9 V max. 18 V max. 30 V max.
Reverse voltage protection		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		±3 %
Regulation - Input variation - Load variation 20 - 100 %		1.2 % / 1 % change Vin 10 % max.
Ripple and noise (20 MHz Bandwidth)		150 mV pk-pk max.
Temperature coefficient		±0.02 %/K
Short circuit protection		limited 1 sec. max.
Capacitive load		33 μF max.
General Specifications		
Temperature ranges - Operating - Case temperature - Storage		-40°C to +85°C +95°C max. -40°C to +105°C
Humidity (non condensing)		95 % rel H max.
Reliability, calculated MTTF (MILHDBK-217F, @+25°C ground benig	gn)	>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		90 kHz typ. (Frequency modulation)
Frequency change over line and load		±30 % max.

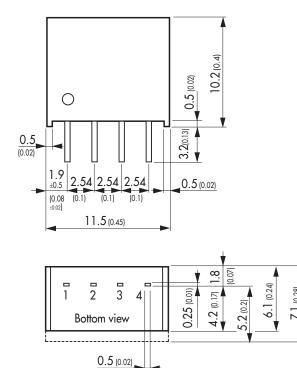
All specifications valid at nominal input voltage, full load and $+25^{\circ}\text{C}$ after warm-up time unless otherwise stated.





Physical Specifications		
Casing material		non conductive black plastic (UL 94-VO 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 sec.

Outline Dimensions mm (inches)



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

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

Specifications can be changed any time without notice.



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