

SMT05E Series

3.0-5.5 Vin
single output

Total Power: 8.25W
Input Voltage: 3.0 - 5.5 Vdc
of Outputs: Single

Special Features

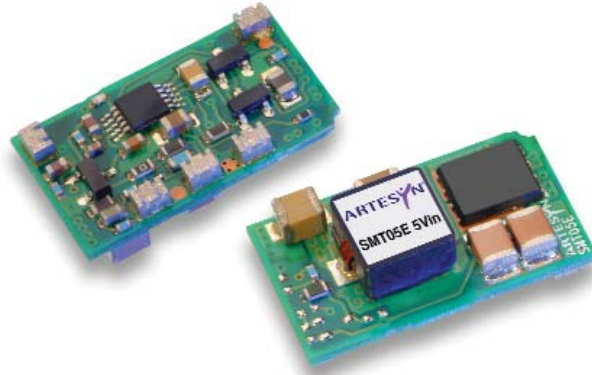
- 5 A Current rating
- Input voltage range:
3.0 Vdc - 5.5 Vdc
- Output voltage range:
0.75 Vdc - 3.63 Vdc
- Ultra high efficiency:
94% @ 5 Vin and 3.3 Vout
- Extremely low internal power
dissipation
- Minimal thermal
design concerns
- Designed in reliability:
MTBF of >9 million hours per
Telcordia SR-332
- Ideal solution where board
space is at a premium or
tighter card pitch is required
- Industry standard
surface-mount footprint
- Available RoHS compliant
- 2 year warranty

Safety

UL/cUL CAN/CSA 22.2
No. E174104
UL 60950 File No. E174104

TÜV Product Service (EN60950)
Certificate No. B 03 10 38572

CB report and certificate to
DE3-51686M1



The SMT05E series are non-isolated dc-dc converters packaged in a surface mount footprint giving designers a cost effective solution for conversion from a 3.3 Vdc to 5 Vdc source. The SMT05E has a wide input range (3.0 Vdc to 5.5 Vdc) and offers a wide 0.75 Vdc to 3.63 Vdc output voltage range with a 5 A load, which allows for maximum design flexibility and a pathway for future upgrades. The SMT05E is designed for applications that include distributed power, workstations, optical network and wireless applications. Implemented using state of the art surface-mount technology and automated manufacturing techniques, the SMT05E offers compact size and efficiencies of up to 94%.



Specifications

All specifications are typical at nominal input, full load at 25°C unless otherwise stated.

OUTPUT SPECIFICATIONS

Voltage adjustability	0.75-3.63 Vdc
Setpoint accuracy	±0.4%
Line regulation	±1.0%
Load regulation	±1.0%
Minimum load	0 A
Overshoot/undershoot	None
Ripple and noise 5 Hz to 20MHz	75 mV pk-pk 25 mV rms
Temperature co-efficient	±0.01%/°C
Transient response	60 mV max. deviation 50 μs recovery to within 1%

INPUT SPECIFICATIONS

Input voltage range	3.0-5.5 Vdc
Input current	No load (max.) 150 mA
Input current (max.)	3.9 A max. @ I _o max. and V _{out} = 3.3 V
Input reflected ripple	40 mA rms
Remote ON/OFF	(See Note 1)
Start-up time	20 ms

EMC CHARACTERISTICS

Electrostatic discharge	EN61000-4-2, IEC801-2
Conducted immunity	EN61000-4-6
Radiated immunity	EN61000-4-3

GENERAL SPECIFICATIONS

Efficiency	See Table	
Insulation voltage	Non-isolated	
Switching frequency	Fixed	300 kHz typ.
Approvals and standards	EN60950 UL/cUL60950	
Material flammability	UL94V-0	
Dimensions	(LxWxH)	20.32 x 11.43 x 6.70 mm 0.800 x 0.450 x 0.264 inches
Weight	2.8 g (0.10 oz)	
Coplanarity	100 μm	
MTBF	Telcordia SR-332	9,009,000 hours

ENVIRONMENTAL SPECIFICATIONS

Thermal performance (See Note 2)	Operating ambient, temperature	-40 °C to +85 °C
	Non-operating	-40 °C to +125 °C

PROTECTION

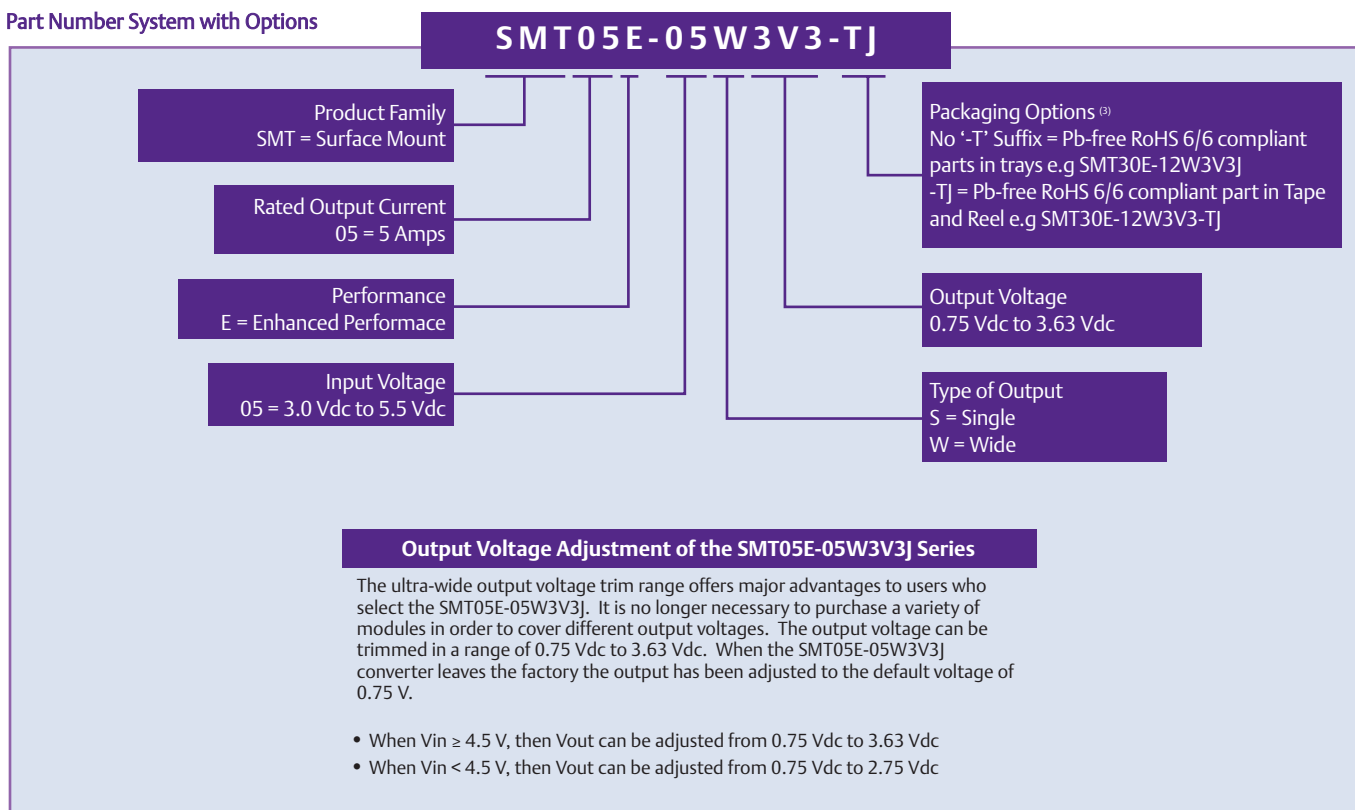
Short-circuit	Continuous
Thermal	Automatic recovery

Specifications

All specifications are typical at nominal input, full load at 25°C unless otherwise stated.

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER ^(3,4)
						LINE	LOAD	
8.25 W	3.0-5.5 Vdc	1.5 Vdc	0 A	5 A	87.5%	±1.0%	±1.0%	SMT05E-05S1V5J
18.15 W	3.0-5.5 Vdc	0.75-3.63 Vdc	0 A	5 A	94%	±1.0%	±1.0%	SMT05E-05W3V3J

Part Number System with Options



Notes

- 1 The SMT05E features a 'Negative Logic' Remote ON/OFF operation. If not using the Remote ON/OFF pin, leave the pin open (the converter will be on). The Remote ON/OFF pin is referenced to ground.

The following conditions apply for the SMT05E:

Configuration

Remote pin open circuit

Remote pin pulled low

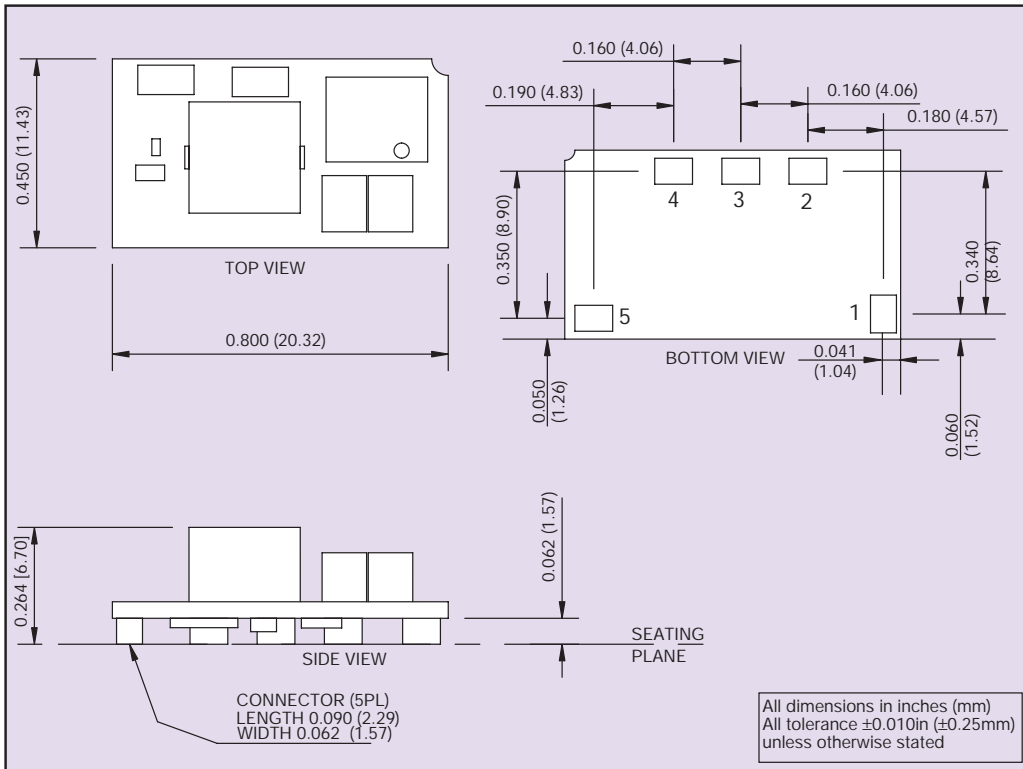
Remote pin pulled high [$V_{on/off} > 2.5$ V] Unit is OFF

Converter Operation

Unit is ON

Unit is ON

- An 'Positive Logic' Remote ON/OFF version is also possible with this converter. To order please use part number SMT05E-05W3V3-RJ or SMT05E-05W3V3-RTJ.
- 2 Full derating curves available in both the Longform Datasheet and Application Note.
- 3 TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- 4 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.



PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	Remote ON/OFF
2	Vout
3	Trim
4	Ground
5	+Vin

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

16th - 17th Floors, Lu Plaza
2 Wing Yip Street, Kwun Tong
Kowloon, Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.powerconversion.com

technicalsupport@powerconversion.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- **Embedded Power**
- Inbound Power
- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2007 Emerson Electric Co.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.