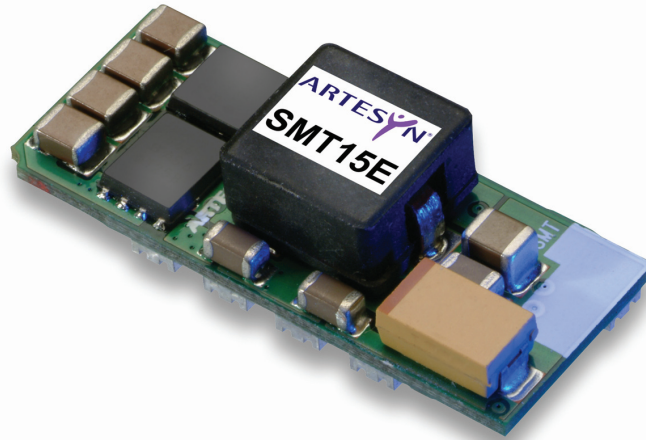


SMT15E Series 12 Vin

Total Power: 49.5 Watts
Input Voltage: 10-14 Vdc
of Outputs: Single



Special Features

- 15 A Current rating
- Input voltage range: 10 Vdc to 14 Vdc
- Output voltage range: 0.8 Vdc to 3.63 Vdc
- Ultra high efficiency: 94% @ 12 Vin and 3.3 Vout
- Extremely low internal power dissipation
- Minimal thermal design concerns
- Designed for reliability: MTBF of 6,920,000 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. E186249
- TÜV Product Service (EN60950) Certificate No. B 08 05 51485 378
- CB report and certificate to IEC60950 DE3-51686M1

Electrical Specifications

| Input | | |
|---------------------------|----------------|---|
| Input voltage range: | | 10-14 Vdc |
| Input current: | No load (max.) | 100 mA |
| Input current (max.): | | 4.5 A max. @ Io max. and Vout = 3.3 V |
| Input reflected ripple: | | 100 mA rms |
| Remote ON/OFF: | | (See Note 1) |
| Start-up time: | | 20 ms |
| Output | | |
| Voltage adjustability: | | 0.8 - 3.63 Vdc |
| Setpoint accuracy: | | ±0.4% typ. |
| Line regulation: | | ±0.2% typ. |
| Load regulation: | | ±1.0% typ. |
| Total error band: | | ±3.0% typ. |
| Minimum load: | | 0 A |
| Overshoot/Undershoot: | | None |
| Ripple and noise: | 5 Hz to 20 mHz | 60 mV pk-pk 25 mV rms |
| Temperature co-efficient: | | ±0.01%/°C |
| Transient response: | | 100 mV max. deviation 100µs recovery to within ±1.0% |
| Remote sense: | | 10% Vo compensation |

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



EMC Characteristics

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

General Specifications

| | | |
|--------------------------|------------------|--|
| Efficiency: | | 94% |
| Insulation voltage: | | Non-isolated |
| Switching frequency: | Fixed | 200 kHz typ. |
| Approvals and standards: | | EN60950 UL/cUL60950 |
| Material flammability: | | UL94V-0 |
| Dimensions | (L x W x H) | 33.02 x 13.46 x 8.21 mm 1.3 x 0.53 x 0.323 inches |
| Weight: | | 6.3 g (0.22 oz) |
| Coplanarity: | | 100 μm |
| MTBF: | Telcordia SR-332 | 6,920,000 hours |

Environmental Specifications

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

Protection

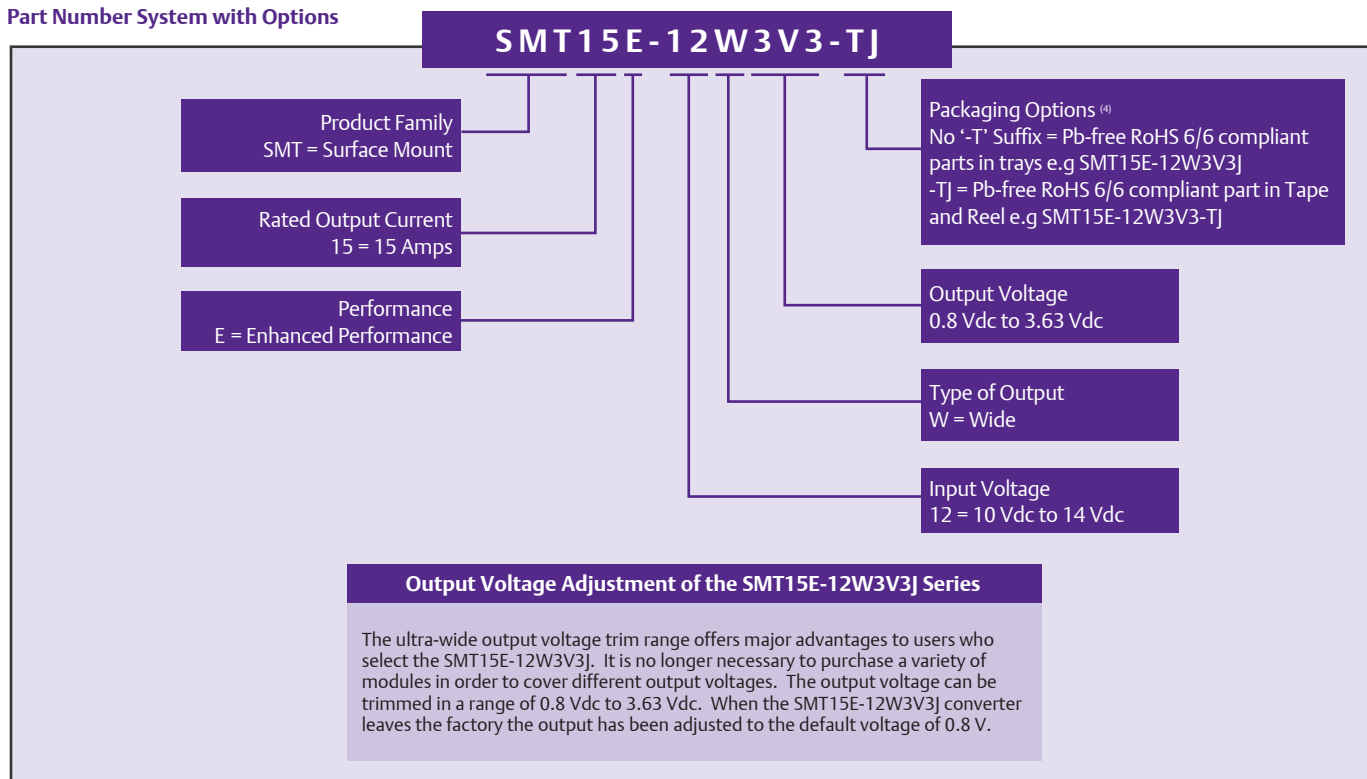
| | |
|----------------|--------------------|
| Short circuit: | Continuous |
| Thermal: | Automatic recovery |

Ordering Information

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

| Ordering Information | | | | | | | | |
|----------------------|---------------|----------------|-----------------|------|----------------------------------|------------|-------|--------------------------------|
| Output Power (Max.) | Input Voltage | Output Voltage | Output Currents | | Efficiency (typ.) ⁽³⁾ | Regulation | | Model Numbers ^(4,5) |
| | | | Min | Max | | Line | Load | |
| 49.5 W | 10 - 14 Vdc | 0.8 - 3.63 Vdc | 0 A | 15 A | 94% | ±0.2% | ±1.0% | SMT15E-12W3V3J |

Part Number System with Options



Notes

- The SMT15E features an 'Positive 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 SMT15E:

| Configuration | Converter Operation |
|--|---------------------|
| Remote pin open circuit | Unit is ON |
| Remote pin pulled low [Von/off < 0.8 V] | Unit is OFF |
| Remote pin pulled high [Von/off > 1.6 V] | Unit is ON |

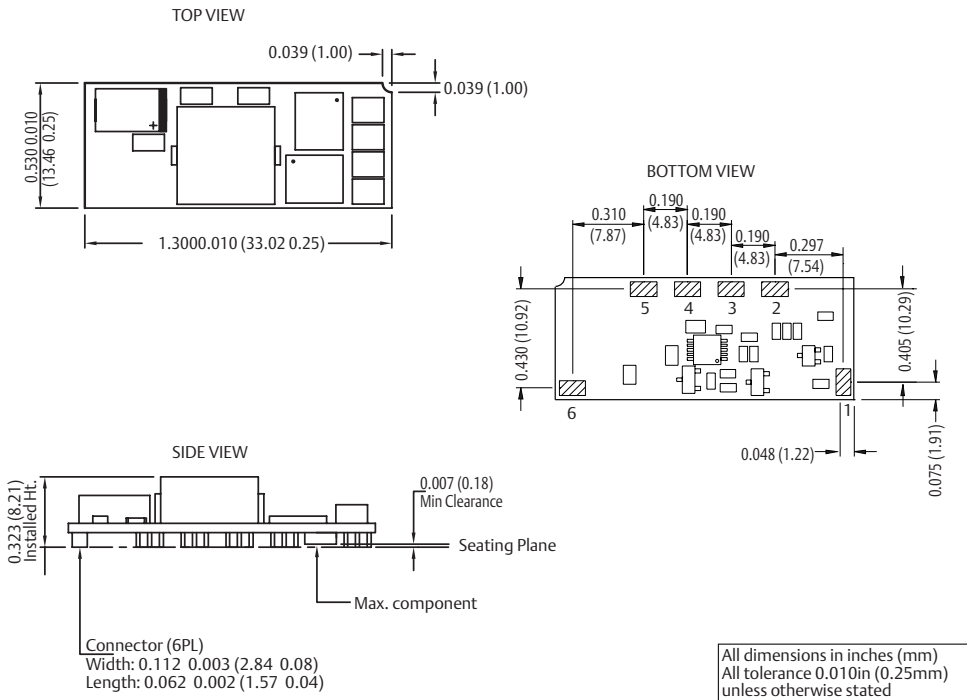
An 'Negative Logic' Remote ON/OFF version is also possible with this converter. To order please place the suffix 'R' at the end of the model number, e.g. SMT15E-12W3V3-TRJ.

- Full derating curves available in both the Longform Datasheet and Application Note.
- Typical efficiency figures for various output voltages are as follows:

| | |
|-------|-------|
| 1.2 V | 83% |
| 1.5 V | 85.5% |
| 1.8 V | 87.5% |
| 2.0 V | 91% |
| 2.5 V | 92% |

- TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- NOTICE: Some models do not support all options. Please contact your local Emerson Network Power representative or use the on-line model number search tool at <http://www.PowerConversion.com> to find a suitable alternative.

Mechanical Drawing



| Pin Connections | |
|-----------------|----------------|
| Pin Number | FUNCTION |
| Pin 1 | Remote ON/OFF |
| Pin 2 | Remote Sense + |
| Pin 3 | Trim |
| Pin 4 | +Vout |
| Pin 5 | Ground |
| Pin 6 | +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)

14/F, 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
techsupport.embeddedpower@emerson.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 Computing
- **Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
 ©2008 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.