

# SMT10E Series

12Vin single output

**NEW Product**

- **10A Current rating**
- **Input voltage range: 10V - 14V**
- **Output voltage range: 0.8V - 3.63V**
- **Ultra high efficiency: 94% @ 12Vin and 3.3Vout**
- **Extremely low internal power dissipation**
- **Minimal thermal design concerns**
- **Designed in 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**



The SMT10E series are non-isolated DC/DC converters packaged in a surface-mount footprint giving designers a cost effective solution for conversion from a 12V source. The SMT10E has a wide input range (10V to 14V) and offers a wide 0.8V to 3.63V output voltage range with a 10A load, which allows for maximum design flexibility and a pathway for future upgrades. The SMT10E 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 SMT10E offers compact size and efficiencies of up to 94%.

cUL<sup>®</sup> US TÜV

**2 YEAR WARRANTY**

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

## OUTPUT SPECIFICATIONS

Voltage adjustability	0.8V to 3.63V
Setpoint accuracy	±0.4% typ.
Line regulation	±0.2% typ.
Load regulation	±1.0% typ.
Total error band	±3.0% typ.
Minimum load	0A
Overshoot/undershoot	None
Ripple and noise	5Hz to 20MHz 60mV pk-pk 25mV rms
Temperature co-efficient	±0.01%/°C
Transient response	100mV max. deviation 100µs recovery to within ±1.0%
Remote sense	10% Vo compensation

## INPUT SPECIFICATIONS

Input voltage range	10 to 14VDC
Input current	No load (max.) 100mA
Input current (max.)	3A max. @ Io max. and Vout = 3.3V
Input reflected ripple	100mA rms
Remote ON/OFF	(See Note 1)
Start-up time	20ms

## 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 200kHz typ.
Approvals and standards	EN60950 UL/cUL60950
Material flammability	UL94V-0
Dimensions	(LxWxH) 33.02 x 13.46 x 8.21mm 1.3 x 0.53 x 0.323 inches
Weight	6.3g (0.22oz)
Coplanarity	100µm
MTBF	Telcordia SR-332 6,920,000 hours

## ENVIRONMENTAL SPECIFICATIONS

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

## PROTECTION

Short-circuit protection	Continuous
Thermal protection	Automatic recovery

## International Safety Standard Approvals



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

TÜV Product Service (EN60950) Certificate No. B02 12 38272 035  
CB report and certificate to IEC60950

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DC/DC CONVERTERS | E Class Non-isolated

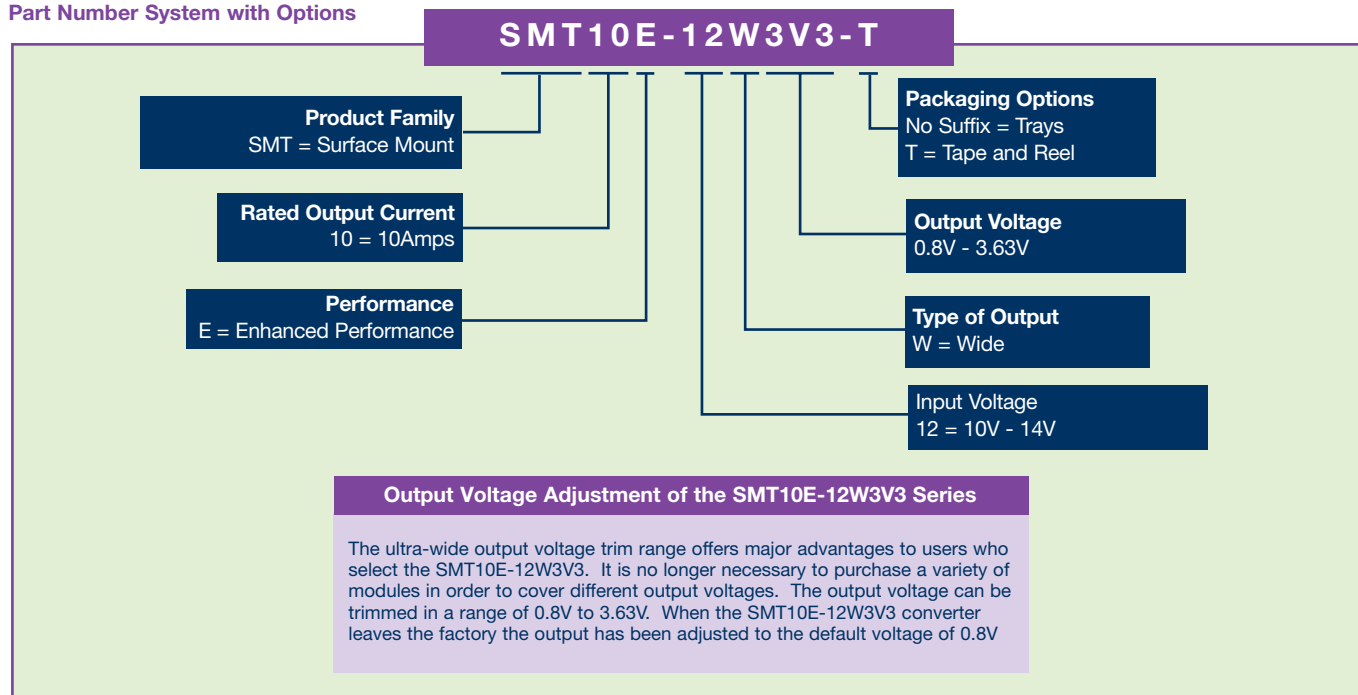
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For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://www.artesyn.com/powergroup/products.htm)

**NEW Product**

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER
						LINE	LOAD	
33W	10V - 14V	0.8V - 3.63V	0A	10A	94%	±0.2%	±1.0%	SMT10E-12W3V3

### Part Number System with Options



### Notes

- The SMT10E features an 'Active High' 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 SMT10E:

#### Configuration

Remote pin open circuit  
Remote pin pulled low [Von/off < 0.8V]  
Remote pin pulled high [Von/off > 1.6V]

#### Converter Operation

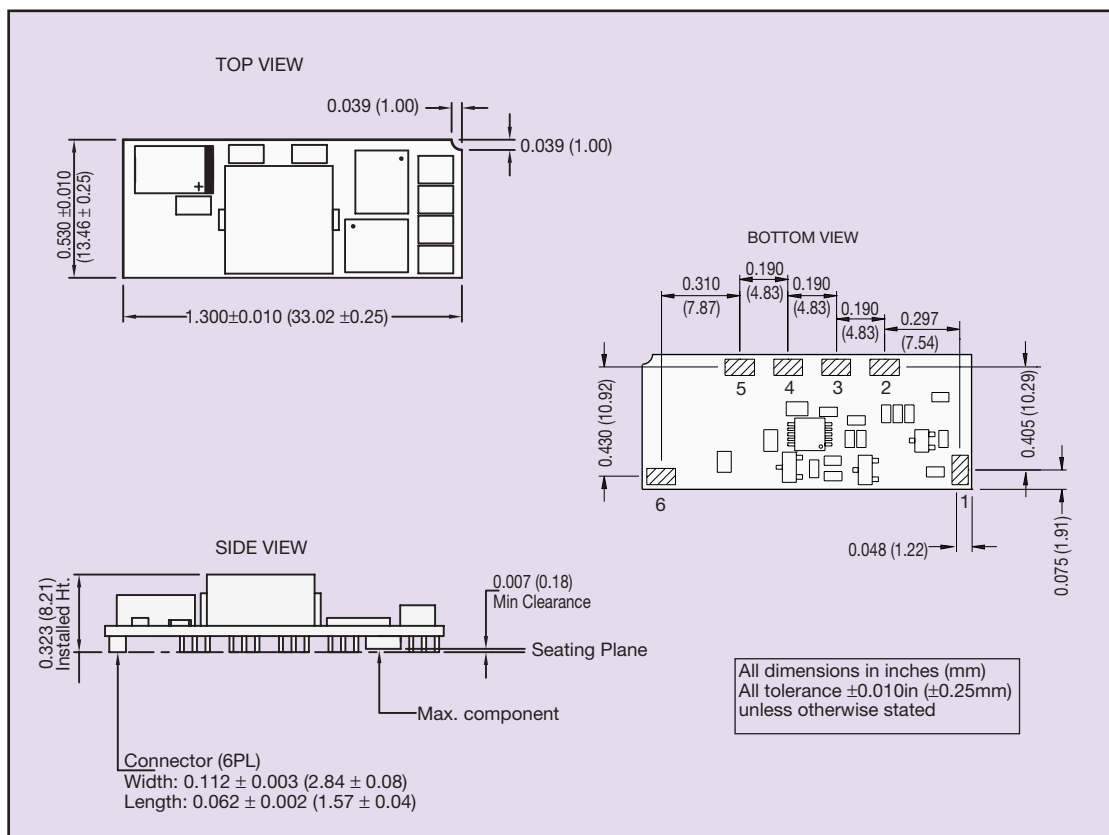
Unit is ON  
Unit is OFF  
Unit is ON

An 'Active Low' Remote ON/OFF version is also possible with this converter. Please consult the factory for details.

- Full de-rating curves available in both the Long Form Data Sheet and Application Note.

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## PIN CONNECTIONS

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

\*The sense function and the trim function are customer specified options. Please consult factory for details.