

# SMT15E Series

查询"SMT15E-05S2V5"供应商  
Single output

## NEW Product

- Current rating of 15A
- Outputs of 2.5V and 3.3V - 10% trim
- Applications for 5V or 3.3V input POL converters
- Highest power density available today (220W/in<sup>3</sup>)
- High efficiency - up to 95% achievable on 3.3Vout
- Industry standard surface-mount footprint
- Remote sense and remote ON/OFF
- Available in tape and reel



The SMT15E series are non-isolated DC/DC converters packaged in a surface mount footprint giving designers a cost effective solution for conversion from either a 3.3V or 5V input to output voltages of 3.3V and 2.5V. The SMT15E offers a range of fixed outputs at an industry leading 15A which allows maximum design flexibility and a pathway for future upgrades. Local voltage conversion by the SMT15E series from existing 3.3V or 5V system voltages eliminates the need for redesign of existing power architectures when voltage requirements change. The SMT15E 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 SMT15E offers compact size and efficiencies of up to 95%.



2 YEAR WARRANTY

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

## SPECIFICATIONS

### OUTPUT SPECIFICATIONS

|                                  |                                                         |
|----------------------------------|---------------------------------------------------------|
| Voltage adjustability            | ±10%                                                    |
| Output setpoint accuracy         | ±2.7%                                                   |
| Line regulation                  | ±1.0%                                                   |
| Load regulation                  | ±1.0%                                                   |
| Minimum load                     | 0A                                                      |
| Overshoot/undershoot             | None                                                    |
| Ripple and noise<br>5Hz to 20MHz | 60mV pk-pk<br>25mV rms                                  |
| Temperature co-efficient         | ±0.01%/°C                                               |
| Transient response               | 60mV max. deviation<br>50µs recovery to<br>within ±1.0% |
| Remote sense                     | 10% Vo compensation                                     |

### INPUT SPECIFICATIONS

|                        |                                         |
|------------------------|-----------------------------------------|
| Input voltage range    | 3.0 to 5.5VDC                           |
| Input current          | No load (max.) 100mA                    |
| Input current (max.)   | 11.8A max. @ Io max.<br>and Vout = 3.3V |
| Input reflected ripple | 30mA 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                        | See table                                                   |
| Insulation voltage                | Non-isolated                                                |
| Switching frequency               | Fixed 300kHz typ.                                           |
| Approvals and standards (pending) | EN60950<br>UL/cUL60950                                      |
| Material flammability             | UL94V-0                                                     |
| Dimensions                        | (LxWxH) 33.00 x 13.46 x 8.20mm<br>1.3 x 0.53 x 0.323 inches |
| Weight                            | 6.3g (0.22oz)                                               |
| Coplanarity                       | 100µm                                                       |
| MTBF                              | Telecordia 332 7,042,000                                    |

### ENVIRONMENTAL SPECIFICATIONS

|                                     |                                                    |                                    |
|-------------------------------------|----------------------------------------------------|------------------------------------|
| Thermal performance<br>(see Note 4) | Operating ambient,<br>temperature<br>Non-operating | -40°C to +100°C<br>-40°C to +125°C |
|-------------------------------------|----------------------------------------------------|------------------------------------|

### International Safety Standard Approvals (pending)



UL/cUL CAN/CSA 22.2 No. (TBD)  
UL 60950 file No. (TBD)

TÜV Product Service (EN60950)

Certificate No. (TBD). CB report and certificate to IEC60950

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## DC/DC CONVERTERS

50W Non-isolated DC/DC Converters

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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 |               |
| 41.25W              | 3.0V - 5.5V <sup>(3)</sup> | 2.5V           | 0A                    | 15A                   | 94%               | ±1%        | ±1%  | SMT15E-05S2V5 |
| 54.50W              | 4.5V - 5.5V <sup>(2)</sup> | 3.3V           | 0A                    | 15A                   | 95%               | ±1%        | ±1%  | SMT15E-05S3V3 |

### Notes

- 1 Referenced to ground for shutdown. If pin 1 is high unit will shutdown. If pin 1 is open unit will operate as normal. Converter is guaranteed OFF when pin 1 is greater than 1.2V.
- 2 For 3.3Vout, the input must be greater than 4.5V
- 3 For 2.5Vout, the input must be greater than 3.3V
- 4 Full de-rating curves available in both the Long Form Data Sheet and Application Note 136.

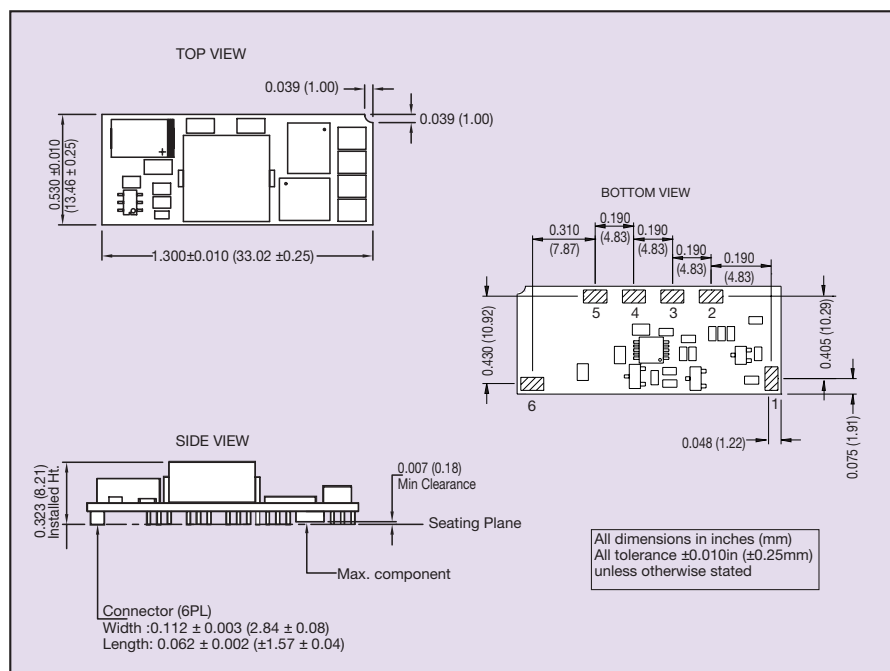
**CAUTION:** High internal temperatures. Ensure that unit is not user accessible.

### PROTECTION

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

### PIN CONNECTIONS

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



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Please consult our website for the following items: ✓ Application Note ✓ Longform Data Sheet

[www.artesyn.com](http://www.artesyn.com)