

## SNS10A Series

## NON-ISOLATED DC-DC POL CONVERTER



### FEATURES 5V, 12V Inputs

- Delivers 10A of Output Current
- High Efficiency
- Compact Footprint / Low Profile
- Single-in-Line SIP / SMT Package
- Cost-Efficient Open Frame Design
- Remote On/Off Control (CNT) (Active Low)
- Remote Sense
- Trimmable Output Voltage via External Resistor
- Low Output Ripple / Noise
- Over Current Protection (OCP)
- Over Temperature Protection (OTP)
- 3 Year Warranty

### ELECTRICAL SPECIFICATIONS

#### SNS10A - 5 Packages

• Input Range	5V(3.0 - 5.5) 4.5 - 5.5V(Only Output 3.3V)
• Efficiency	95%@3.3V
• Remote On/Off Control	On : Open, 0 - 1.0V Off : +1.2V to +Vin
• Output Voltages	1.0 - 3.3V
• Output Voltage Tolerance	±2.0%
• Line Regulation	±0.3% Max.
• Load Regulation	±0.4% Max.
• Switching Frequency	300kHz
• * Ripple and Noise	30mVp-p (@3.3V)

#### SNS10A - 12 Packages

• Input Range	12V(10 - 14)
• Efficiency	95%@5.0V
• Remote On/Off Control	On : Open, 0 - 1.0V Off : +1.2V to +Vin
• Output Voltages	1.0 - 5.0V
• Output Voltage Tolerance	±2.0%
• Line Regulation	±0.3% Max.
• Load Regulation	±0.4% Max.
• Switching Frequency	300kHz
• * Ripple and Noise	50mVp-p (@5.0V)

### ENVIRONMENTAL

• Operating Temperature Range	-40°C ~ 85°C
• Storage Temperature Range	-40°C ~ 125°C
• Lead Temperature (Soldering , 10sec)	+300°C
• Thermal ShUTDOWN	+135°C
• MTBF (MIL-HDBK-217F)	8.0 x 10 <sup>5</sup> hrs (5V Input) 7.6 x 10 <sup>5</sup> hrs (12V Input)

\* Ripple & Noise is tested / Specified over a 20MHz bandwidth and may be reduced with external filtering.

ORDERING INFORMATION

Input	Output	Maximum Power	Ripple&Noise Max.	Efficiency Typ.	Model Number
3.0 - 5.5V	1.0V@10.00A	10.00W	30mVp-p	87%	<b>SNS10A-5-1R0V(H)</b>
3.0 - 5.5V	1.2V@10.00A	12.00W	30mVp-p	89%	<b>SNS10A-5-1R2V(H)</b>
3.0 - 5.5V	1.5V@10.00A	15.00W	30mVp-p	90%	<b>SNS10A-5-1R5V(H)</b>
3.0 - 5.5V	1.8V@10.00A	18.00W	30mVp-p	91%	<b>SNS10A-5-1R8V(H)</b>
3.0 - 5.5V	2.0V@10.00A	20.00W	30mVp-p	92%	<b>SNS10A-5-2R0V(H)</b>
3.0 - 5.5V	2.5V@10.00A	25.00W	30mVp-p	94%	<b>SNS10A-5-2R5V(H)</b>
4.5 - 5.5V	3.3V@10.00A	33.00W	30mVp-p	96%	<b>SNS10A-5-3R3V(H)</b>
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10 - 14V	1.0V@10.00A	10.00W	50mVp-p	83%	<b>SNS10A-12-1R0V(H)</b>
10 - 14V	1.2V@10.00A	12.00W	50mVp-p	87%	<b>SNS10A-12-1R2V(H)</b>
10 - 14V	1.5V@10.00A	15.00W	50mVp-p	88%	<b>SNS10A-12-1R5V(H)</b>
10 - 14V	1.8V@10.00A	18.00W	50mVp-p	90%	<b>SNS10A-12-1R8V(H)</b>
10 - 14V	2.0V@10.00A	20.00W	50mVp-p	91%	<b>SNS10A-12-2R0V(H)</b>
10 - 14V	2.5V@10.00A	25.00W	50mVp-p	92%	<b>SNS10A-12-2R5V(H)</b>
10 - 14V	3.3V@10.00A	33.00W	50mVp-p	93%	<b>SNS10A-12-3R3V(H)</b>
10 - 14V	5.0V@10.00A	50.00W	50mVp-p	95%	<b>SNS10A-12-5R0V(H)</b>

V : SIP package H : SMT package

1. Typical at Ta = +25°C under nominal line voltage and full load conditions, unless otherwise noted. All models are tested and specified with external input and output capacitors. (Cin=100uF X 2 Cout = 10uF), These capacitors are necessary to accommodate our test equipment.
2. Ripple & Noise is tested / specified over a 20MHz bandwidth and may be reduced with external filtering. See I/O Filtering.
3. These device have no minimum-load requirement and will regulate under no-load conditions. Regulation specification describe the output voltage deviation as the line voltage or load is varied from its minimum value to either extreme.

PIN ASSIGNMENTS

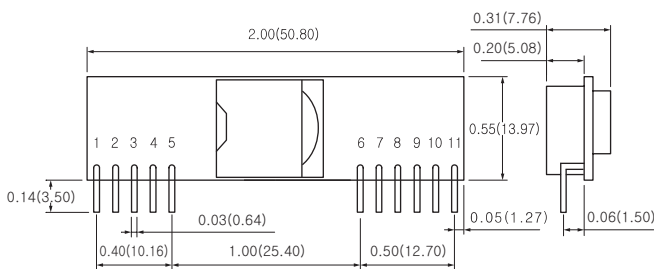
Single Output (SIP)

1. +Vout
2. +Vout
3. Sense
4. +Vout
5. COM
6. COM
7. +Vin
8. +Vin
9. No Pin
10. TRM
11. CNT

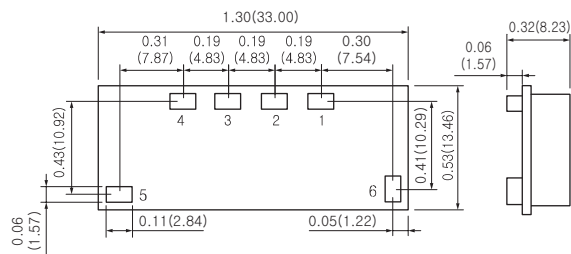
Single Output (SMT)

1. Sense
2. TRM
3. +Vout
4. COM
5. +Vin
6. CNT

DIMENSIONS



[ SIP TYPE ]



[ SMT TYPE ]

- NOTE**
- 1 All dimension are in inches (mm)
  - 2 Weight : 6.2g or less (SIP)  
5.5g or less (SMT)