

- Servers, Switches and Data Storage
- Wireless Communications
- Distributed Power Architecture
- Semiconductor Test Equipment
- Networking Gear
- Data Communications
- Telecommunications
- Industrial / Medical

The S10 Family of high efficiency non-isolated DC/DC converters offer power levels of up to 50 Watt, which exceeds that of other Industry-standard SIPs with the same package, while also providing ultra-wide input voltage range for 3.3Vin and 5Vin. These converters provide versatility without sacrificing the board space. All models feature an input filter and regulated outputs. The open-frame construction facilitates maximum power delivered with the highest efficiency of up to 94%. All converters combine creative design practices with highly derated power devices to achieve very high reliability, high performance and low cost solution to systems designers.

PRELIMINARY

Specifications & Features Summary

- Industry Standard SIP Pinout
- High Efficiency to 94%
- 300KHz Switching Frequency
- 3.3, 5 & 12VDC Input Range
- Over Temperature Protection
- Continuous Short Circuit Protection
- Remote ON/OFF



INPUT SPECIFICATIONS :

Input Voltage Range:	5V - 3.0 - 5.5V
	5V - 4.5 - 5.5V
	12V - 10.8 - 13.2V

Positive Logic Remote on/off Control :

Module ON.....	Open Circuit or <0.4VDC
Module OFF.....	>+2.8VDC to Vin

OUTPUT SPECIFICATIONS :

Voltage Accuracy.....	±1.0% max.
Transient Response :25% Step Load Change.....	<200u sec.
Ripple and Noise, 20MHz BW Note3.....	20mV rms max. 75mV pk-pk max.
Temperature Coefficient.....	±0.03%/C max.
Short Circuit Protection.....	Continuous
Line Regulation, Note1.....	±0.2% max.
Load Regulation, Note2.....	±0.5% max.
External Trim Adj. Range.....	±10%

GENERAL SPECIFICATIONS :

Efficiency.....	See Table
Isolation Voltage.....	Non-isolation
Operating Ambient Temperature Range.....	-40°C to +71°C
Derating, Above 71°C.....	Linearly to Zero Power at +100°C
Storage Temperature Range.....	-40°C to +120°C
Dimensions.....	2 x 0.55 x 0.34 inches (50.8 x 14.07 x 8.6 mm)
Cass Material.....	Non-potted With Open Frame Type

NOTE :

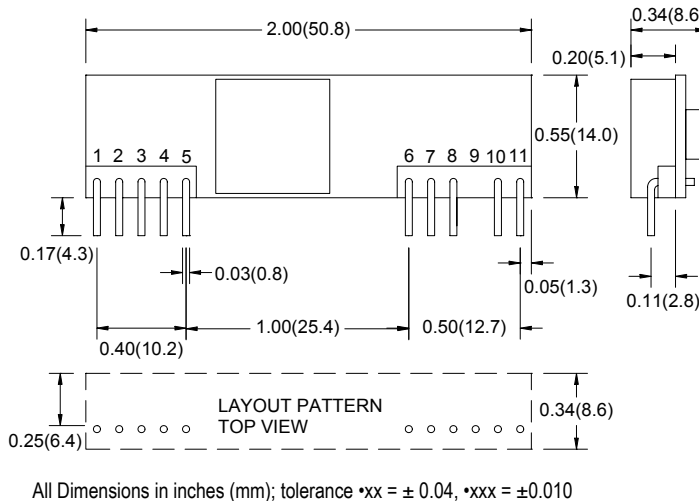
1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. The output noise is measured with 10uf tantalum capacitor and 1uf ceramic capacitor across output.

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	SIZE
				NO LOAD	FULL LOAD		
S10-5S1.2	3.0 - 5.5VDC	1.2 VDC	10 A	60 mA	2824mA	85	SIP
S10-5S1.5	3.0 - 5.5VDC	1.5 VDC	10 A	60 mA	3448mA	87	SIP
S10-5S1.8	3.0 - 5.5VDC	1.8 VDC	10 A	60 mA	4045mA	89	SIP
S10-5S2.5	3.0 - 5.5VDC	2.5 VDC	10 A	70 mA	5435mA	92	SIP
S10-5S3.3	4.5 - 5.5VDC	3.3 VDC	10 A	70 mA	7021mA	94	SIP
S10-12S1.2	10.8 - 13.2VDC	1.2 VDC	10 A	50 mA	1176mA	85	SIP
S10-12S1.5	10.8 - 13.2VDC	1.5 VDC	10 A	50 mA	1453mA	86	SIP
S10-12S1.8	10.8 - 13.2VDC	1.8 VDC	10 A	50 mA	1724mA	87	SIP
S10-12S2.5	10.8 - 13.2VDC	2.5 VDC	10 A	50 mA	2148mA	91	SIP
S10-12S3.3	10.8 - 13.2VDC	3.3 VDC	10 A	60 mA	2957mA	93	SIP
S10-12S5	10.8 - 13.2VDC	5 VDC	10 A	60 mA	4432mA	94	SIP

Typical at Ta= +25 °C under nominal input voltages of 3.3V, 5V and 12VDC, unless noted. The information and specifications contained in this brief are believed to be accurate and reliable at the time of publication. Specifications are subject to change without notice. Refer to product specification sheet for performance characteristics and application guidelines.

Consult factory for hundreds of other available input/output voltage configurations.

CASE SIP



PIN CONNECTION

Pin	FUNCTION
1	+Output
2	+Output
3	+Sense
4	+Output
5	Common
6	Common
7	+V Input
8	+V Input
9	No Pin
10	Trim
11	On/Off Control