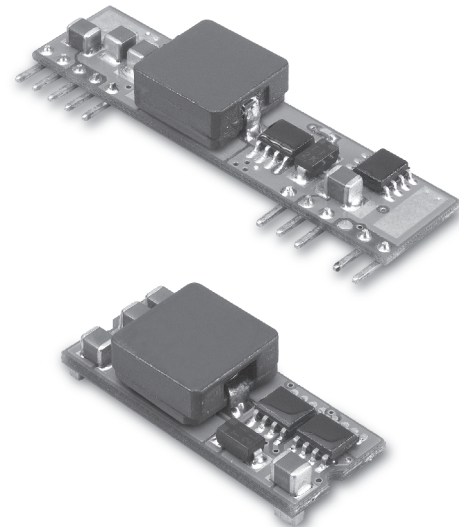


SIP SMT10-05

10 AMP POL CONVERTERS



Features

- Non-Isolated POL Converter
- SIP / SMT Package
- Output Current 10AMP
- Input Voltage Range 3.0-5.5VDC
- 300KHz Switching Frequency
- High Efficiency to 95%
- Over Temperature Protection
- Continuous Short Circuit Protection
- Remote On/Off Control
- UL/c-UL 60950 Certified

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.
				NO LOAD	FULL LOAD	
SIP 10-05S10 SMT10-05S10	3.0 – 5.5 VDC	1.0VDC	10 A	50mA	2353mA	85
SIP 10-05S12 SMT10-05S12	3.0 – 5.5 VDC	1.2VDC	10 A	50mA	2791mA	86
SIP 10-05S15 SMT10-05S15	3.0 – 5.5 VDC	1.5VDC	10 A	50mA	3409mA	88
SIP 10-05S18 SMT10-05S18	3.0 – 5.5 VDC	1.8VDC	10 A	50mA	4000mA	90
SIP 10-05S20 SMT10-05S20	3.0 – 5.5 VDC	2.0VDC	10 A	60mA	4396mA	91
SIP 10-05S25 SMT10-05S25	3.0 – 5.5 VDC	2.5VDC	10 A	60mA	5376mA	93
SIP 10-05S33 SMT10-05S33	4.5 – 5.5 VDC	3.3VDC	10 A	60mA	6947mA	95

NOTE: 1. Nominal Input Voltage 5.0VDC

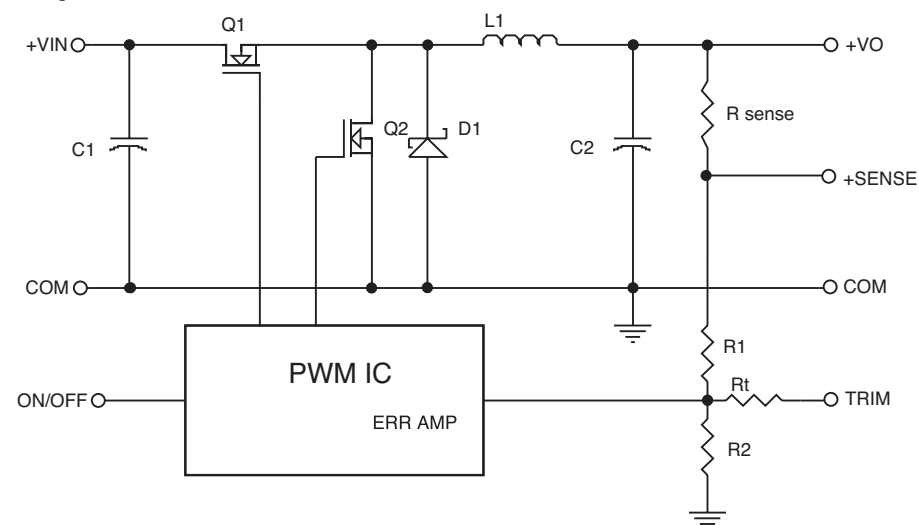


Figure 1. Simplified Schematic

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....	5V.....	3.0 – 5.5V
	5V.....	4.5 – 5.5V
Under Voltage Lock-out	Power up	2.8V Typ.
	Power down.....	2.7V Typ.
Input Filter Type.....		Capacitive
Positive Remote on/off Control :		
Module ON.....		Open Circuit or = Vin
Module OFF.....		< 0.4 Vdc

OUTPUT SPECIFICATIONS:

Voltage Accuracy.....		±1.5% max.
Transient Response :25% Step Load Change.....		<200µ sec.
Ripple and Noise, 20MHz BW ³		20mV rms max.
		50mV pk-pk max.
Temperature Coefficient.....		±0.03%/C max.
Short Circuit Protection.....		Continuous
Line Regulation ¹		± 0.2% max.
Load Regulation ²		± 0.5% max.
Capacitive Load, Low ESR.....		10000µF max.
External Trim Adj. Range.....		±10%

GENERAL SPECIFICATIONS:

Efficiency.....		See Table
Isolation Voltage.....		Non-isolation
Switching Frequency		300KHz Typ.
Over Temperature Protection		120°C Typ.
Operating Ambient Temperature Range.....		-40°C to +85°C
Power Derating Curve		see Figure 2,3
Storage Temperature Range		-55°C to +125°C
Dimensions:		
	SIP Package:	2.00 x 0.50 x 0.33 inches (50.8 x 12.7 x 8.3 mm)
	SMT Package:	1.30 x 0.530 x 0.366 inches (33.0 x 12.46 x 9.3 mm)
Structure.....		Non-potted With Open Frame Type
Weight.....		6.8g

SIP10-05SXX (Vin=5V) Derating Curve

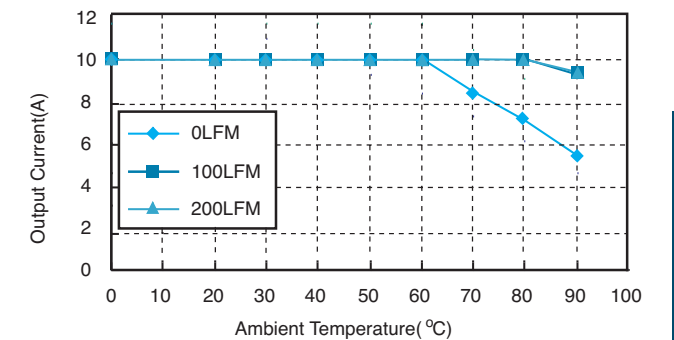


Figure 2. Typical Power De-rating for 5V IN

SMT10-05SXX (Vin=5V) Derating Curve

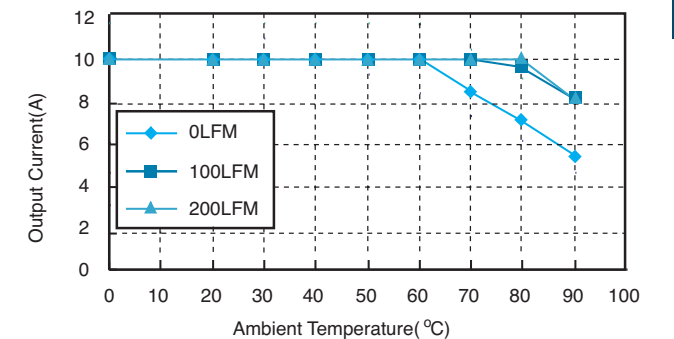


Figure 3. Typical Power De-rating for 5V IN

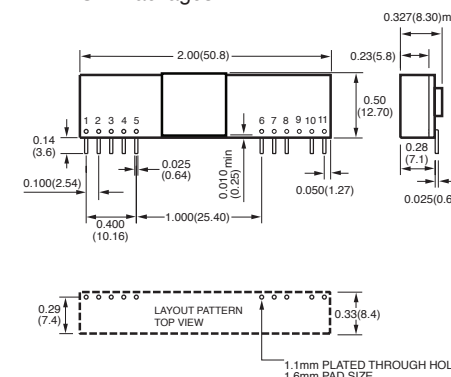
NOTE:

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 1 uF ceramic capacitor across output.
4. The Input Terminal Recommend to Parallel With 100uF Capacitor ESR<20mΩ to Reduce The Input Ripple Voltage
5. Suffix "N" to the Model Number with Negative Logic Remote on/off
Model ON.....Open Circuit or < 0.4VDC
Module OFF.....>+2.8VDC to Vin

Mechanical Specification

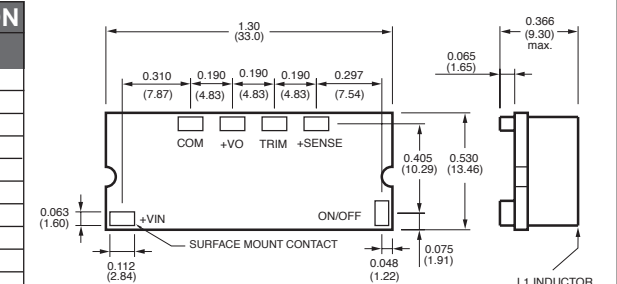
All Dimensions In Inches(mm)
Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010
Millimeters: x.x= ±0.5, x.xx= ±0.25

SIP Packages



SMT Packages

BOTTOM VIEW OF BOARD



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

All Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted.

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