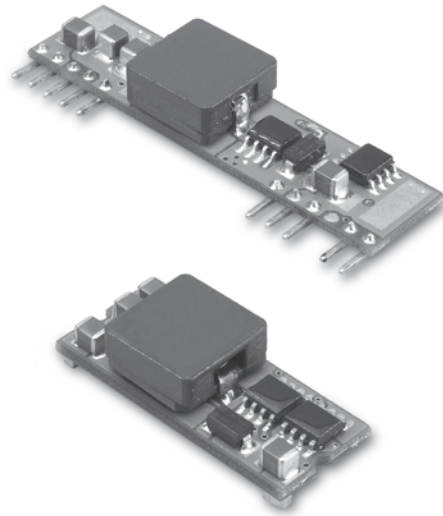


SIP SMT10-05

S E R I E S

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	1.0 VDC	10 A	50 mA	2353 mA	85
SIP 10-05S12 SMT10-05S12	3.0 -5.5 VDC	1.2 VDC	10 A	50 mA	2791 mA	86
SIP 10-05S15 SMT10-05S15	3.0 -5.5 VDC	1.5 VDC	10 A	50 mA	3409 mA	88
SIP 10-05S18 SMT10-05S18	3.0 -5.5 VDC	1.8 VDC	10 A	50 mA	4000 mA	90
SIP 10-05S20 SMT10-05S20	3.0 -5.5 VDC	2.0 VDC	10 A	60 mA	4396 mA	91
SIP 10-05S25 SMT10-05S25	3.0 -5.5 VDC	2.5 VDC	10 A	60 mA	5376 mA	93
SIP 10-05S33 SMT10-05S33	4.5 -5.5 VDC	3.3 VDC	10 A	60 mA	6947 mA	95

NOTE: 1. Nominal Input Voltage 5.0VDC

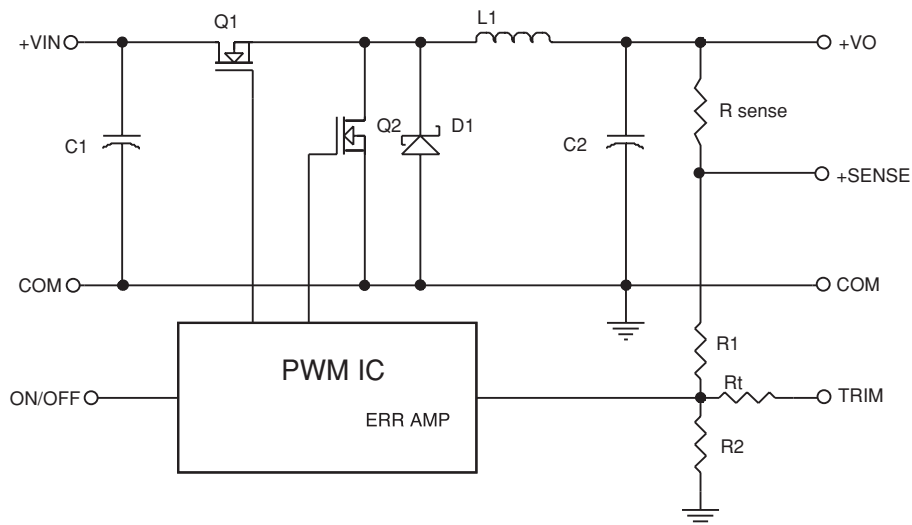


Figure 1. Simplified Schematic

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.....		< 200µs
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%
Start up time.....		4.5ms typ.

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
MTBF...MIL-STD-217F, GB, 25°C, Full Load.....		1500Khrs typ.
Dimensions:		
SIP Package: 2.00x0.50x0.33 inches (50.8x12.7x8.3 mm)		
SMT Package: 1.30x0.530x0.366 inches (33.0x12.46x9.3 mm)		
Structure.....		Non-potted With Open Frame Type
Weight.....		6.8g

SIP10-05SXX (Vo=3.3V) Derating Curve

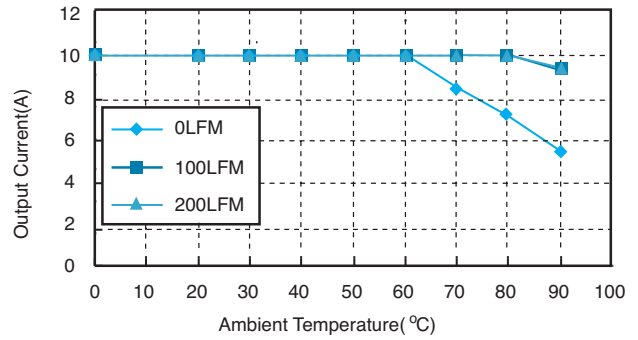


Figure 2. Typical Power De-rating for 5Vin

SMT10-05SXX (Vo=3.3V) Derating Curve

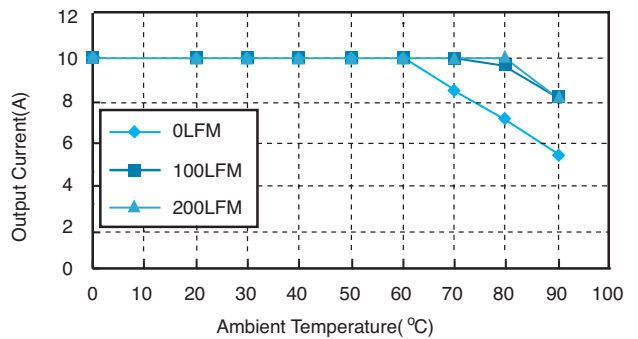


Figure 3. Typical Power De-rating for 5Vin

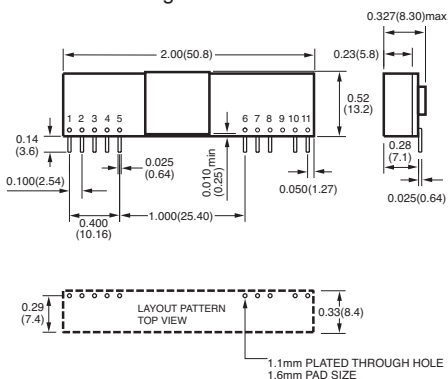
NOTE:

1. Measured From High Line to Low Line.
2. Measured From Full Load to Zero Load.
3. The output noise is measured with 10µF tantalum capacitor and 1µF ceramic capacitor across output.
4. The Input Terminal Recommend to Parallel With 100µF Capacitor ESR<20mΩ to Reduce The Input Ripple Voltage.
5. Suffix "N" to the Model Number with Negative Logic Remote on/off
 Module 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



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

SMT Packages

BOTTOM VIEW OF BOARD

