

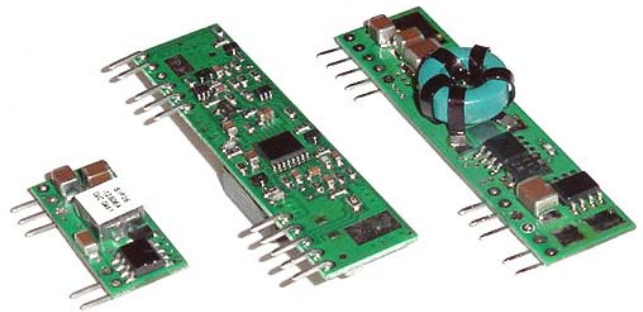
BSIP10-05

BSMT10-05 Series

10A SIP & SMT 5V Input DC-DC Converters

Features

- Industry standard pin out
- High efficiency to 95%
- 300KHz switching frequency
- 3.0 – 5.5 Vdc input range
- Over temperature protection
- Continuous short circuit protection
- Remote On/Off
- Cost efficient open frame design
- UL / cUL 60950 certified



Model Number	Input Voltage	Output Voltage	Output Current	Input Current		Efficiency %
				No Load	Full Load	
BSIP10-05-100 / BSMT10-05-100	3.0 -5.5 Vdc	1.0 Vdc	10A	50 mA	2353 mA	85
BSIP10-05-120 / BSMT10-05-120	3.0 -5.5 Vdc	1.2 Vdc	10A	50 mA	2791 mA	86
BSIP10-05-150 / BSMT10-05-150	3.0 -5.5 Vdc	1.5 Vdc	10A	50 mA	3409 mA	88
BSIP10-05-180 / BSMT10-05-180	3.0 -5.5 Vdc	1.8 Vdc	10A	50 mA	4000 mA	90
BSIP10-05-200 / BSMT10-05-200	3.0 -5.5 Vdc	2.0 Vdc	10A	60 mA	4396 mA	91
BSIP10-05-250 / BSMT10-05-250	3.0 -5.5 Vdc	2.5 Vdc	10A	60 mA	5376 mA	93
BSIP10-05-330 / BSMT10-05-330	4.5 -5.5 Vdc	3.3 Vdc	10A	60 mA	6947 mA	95

Specifications

Input Specifications:

Input Voltage Range.....	5V.....	3-5.5V
	5V.....	4.5-5.5V
Under voltage lock-out	power up	2.8V Typ.
	Power down	2.7V Typ.
Input Filter.....	Capacitive	
Positive remove on /off control:		
Module On	Open circuit or =Vin	
Module Off	< 0.4Vdc	

Switching Frequency.....	300 KHz, Typ.
Over temperature protection	120 °C Typ.
Operating Temperature Range.....	-40°C ~ +85°C
Power derating curve	see fig. 1,2.
Storage Temperature Range.....	-55 °C ~ +125°C
Dimensions:	
SIP package: 2.0" x 0.5" x 0.33" (50.8 x 12.7 x 8.3 mm)	
SMT package: 1.3" x 0.53" x 0.366" (33.0 x 12.46 x 9.3 mm)	
Structure	Non-potted with open frame type

Output Specifications:

Voltage Accuracy.....	+/- 1.5 % max.
Transient response : 25% step load change	< 200 u sec.
Ripple & Noise, 20 MHz BW (note3).....	50 mV p-p 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%
Capacitive load, low ESR.....	10000uF max.

Note:

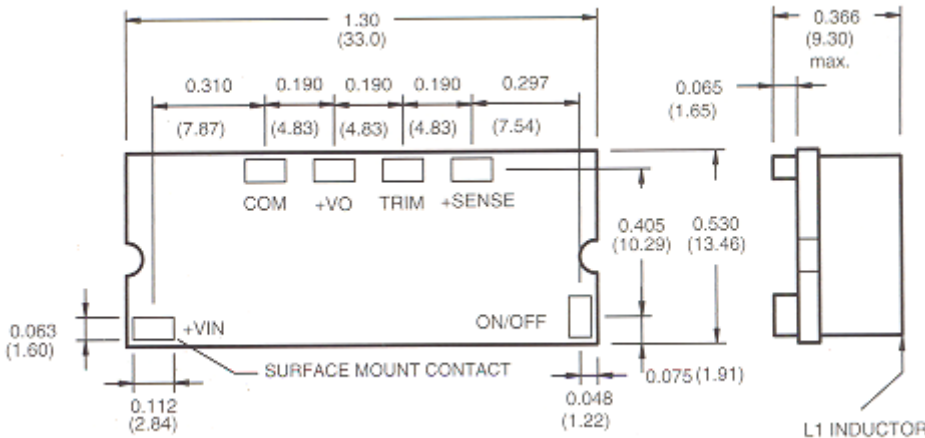
1. Measured from high line to low line;
2. Measured from full load to zero load;
3. Measured with 10uF tantalum capacitor and 1 uF ceramic capacitor across output
4. The input terminal recommend to parallel with 100uF capacitor ESR < 20 mohm
5. Suffix "N" to the model number with Negative logic remote
 Model On: Open circuit or < 0.4Vdc
 Model Off: > +2.8Vdc to Vin

General Specifications:

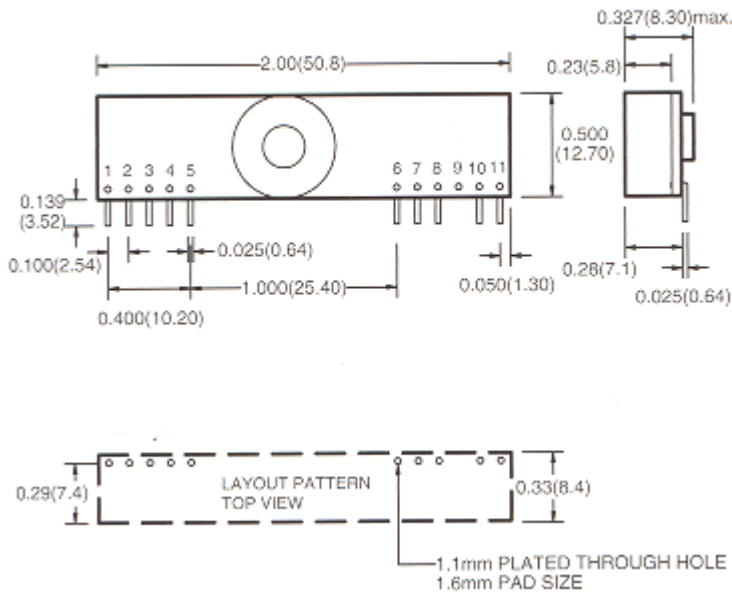
Efficiency.....	see table
Isolation Resistance.....	Non-isolation

Outline Information and Pin-out

SMT Outline information



SIP Outline Information



Dimensions are in Inches (millimeters)

Tolerances: .XX ± 0.2" (.X ± 0.5), unless otherwise noted

.XXX ± 0.01" (.XX ± 0.25)

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

Temperature Typical Derating Curve

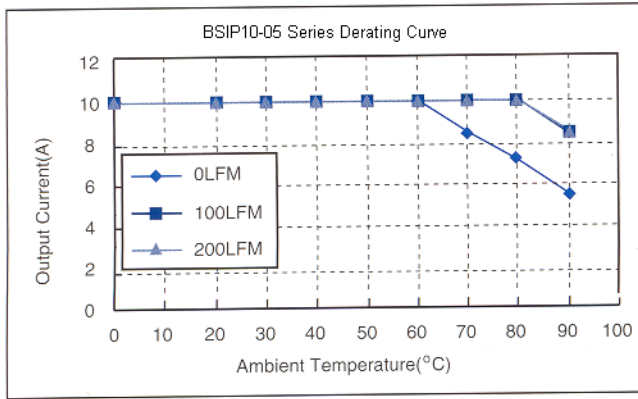


Fig 1.: Typical Derating Curve of BSIP10-05 series

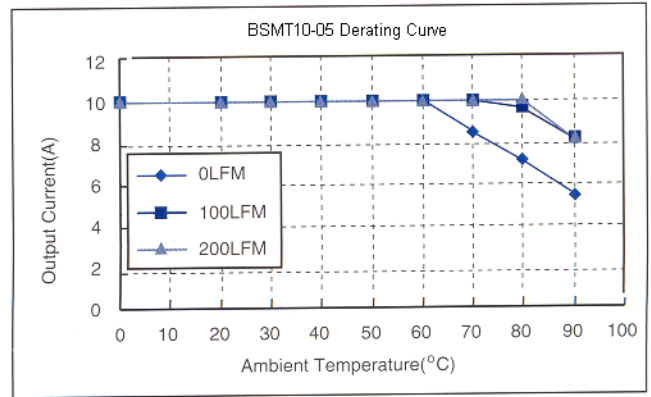


Fig 2.: Typical Derating Curve of BSMT10-05 series

Trim Resistor Values

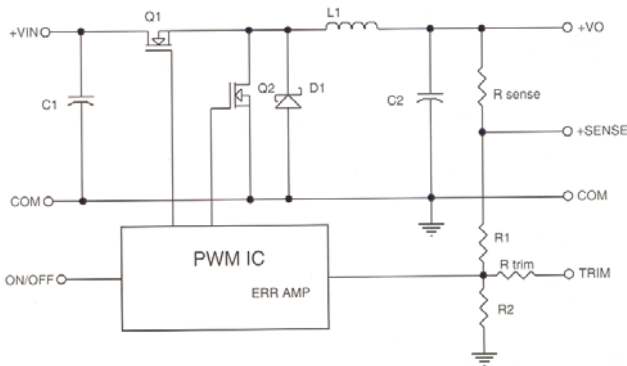


Fig 3.: Simplified Schematic

Vo (set) (V)	Rtrim (Kohm)
0.75	Open
1.2	41.71
1.5	22.98
1.8	14.96
2	11.75
2.5	6.93
3.3	3.15
3.63	2.2

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.