

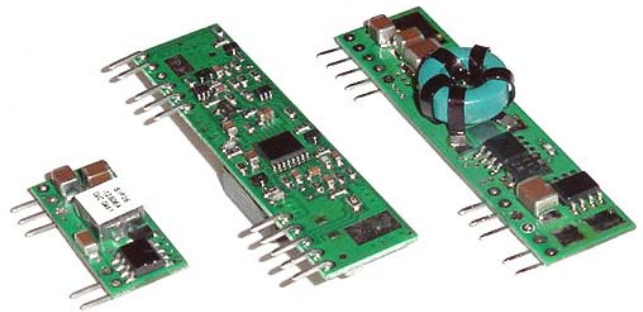
BSIP05-05

BSMT05-05 Series

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

Features

- Industry standard pin out
- High efficiency to 94%
- 300KHz switching frequency
- 3.0 – 5.5 Vdc input range
- 0.75-3.63Vdc wide output 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	
BSIP05-05-075 / BSMT05-05-075	3.0 -5.5 Vdc	0.75 Vdc	5A	25 mA	949 mA	79
BSIP05-05-120 / BSMT05-05-120	3.0 -5.5 Vdc	1.2 Vdc	5A	30 mA	1412 mA	85
BSIP05-05-150 / BSMT05-05-150	3.0 -5.5 Vdc	1.5 Vdc	5A	30 mA	1724 mA	87
BSIP05-05-180 / BSMT05-05-180	3.0 -5.5 Vdc	1.8 Vdc	5A	35 mA	2022 mA	89
BSIP05-05-200 / BSMT05-05-200	3.0 -5.5 Vdc	2.0 Vdc	5A	35 mA	2222 mA	90
BSIP05-05-250 / BSMT05-05-250	3.0 -5.5 Vdc	2.5 Vdc	5A	35 mA	2217 mA	92
BSIP05-05-330 / BSMT05-05-330	4.5 -5.5 Vdc	3.3 Vdc	5A	35 mA	3511 mA	94

Specifications

Input Specifications:

Input Voltage Range.....	5V.....	3-5.5V
	5V.....	4.5-5.5V
Under voltage lock-out	power up	2.0V Typ.
	Power down	1.9V Typ.
Input Filter.....	Capacitive	
Positive remove on /off control:		
Module On	Open circuit or =Vin	
Module Off	< 0.4Vdc	

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)	+/- 0.4 % max.
Load Regulation (note2)	+/- 0.5 % max.
Capacitive load, low ESR.....	300uF max.

General Specifications:

Efficiency.....	see table
Isolation Resistance.....	Non-isolation
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: 0.9" x 0.4" x 0.22" (22.9 x 10.16 x 5.6 mm)

SMT package: 0.8" x 0.45" x 0.24" (20.3 x 11.43 x 6.09 mm)

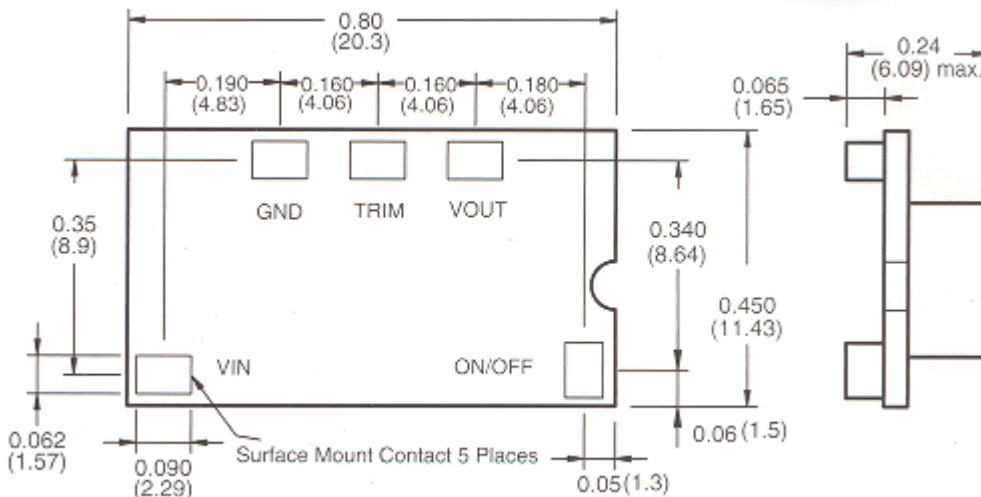
StructureNon-potted with open frame type

Note:

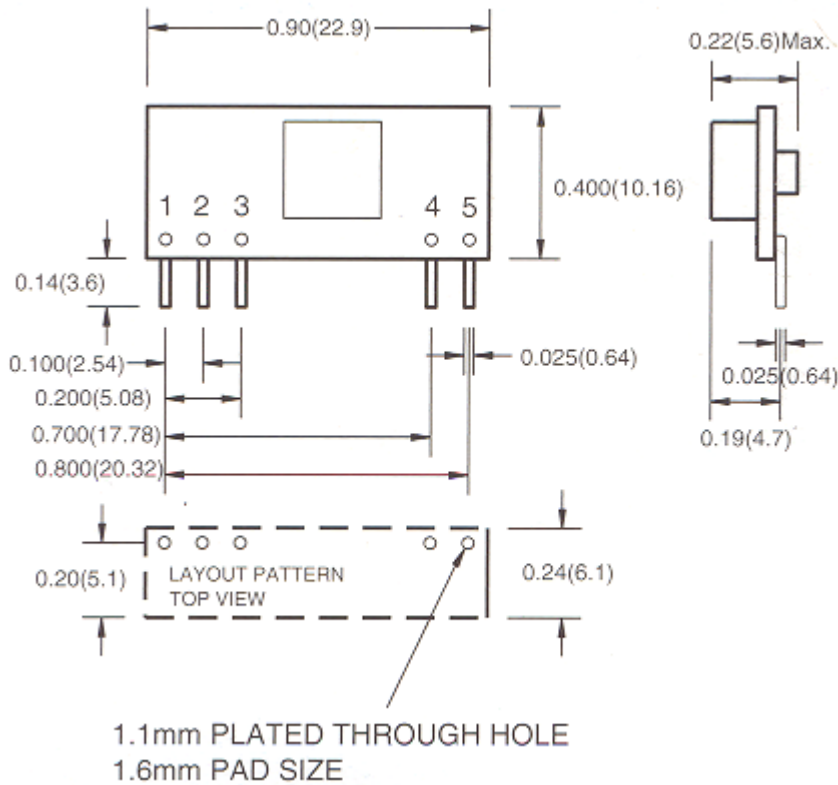
1. Measured from high line to low line;
2. Measured from full load to zero load;
3. Measured with 10uF tantalum capacitor and 1 uF ceramic capacitor across output
4. The input terminal recommend to parallel with 100uF capacitor ESR < 100 mohm
5. Suffix "N" to the model number with Negative logic remote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

Outline Information and Pin-out

SMT Outline information



SIP Outline Inforamtion



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	Trim
3	Common
4	+ V Input
5	On / Off

Temperature Typical Derating Curve

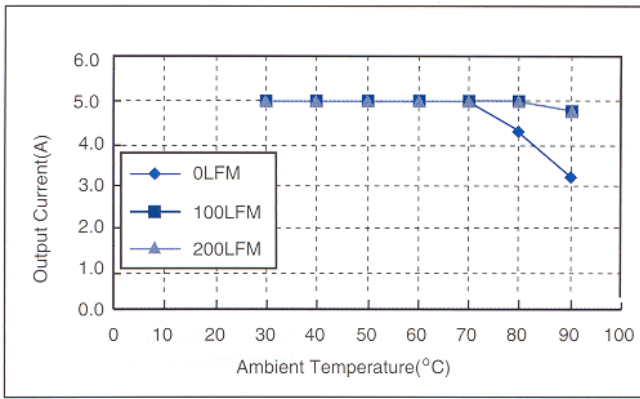


Fig 1.: Typical Derating Curve of BSIP05-05 series

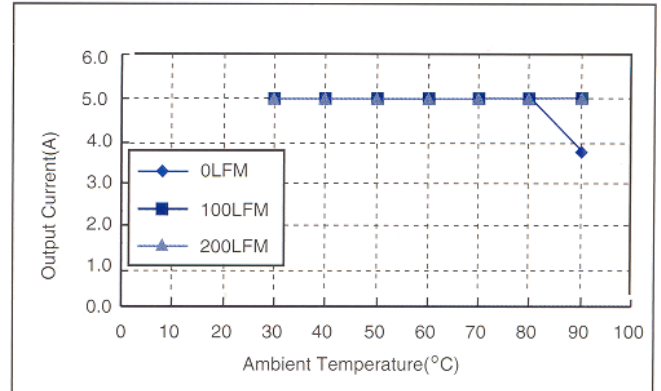
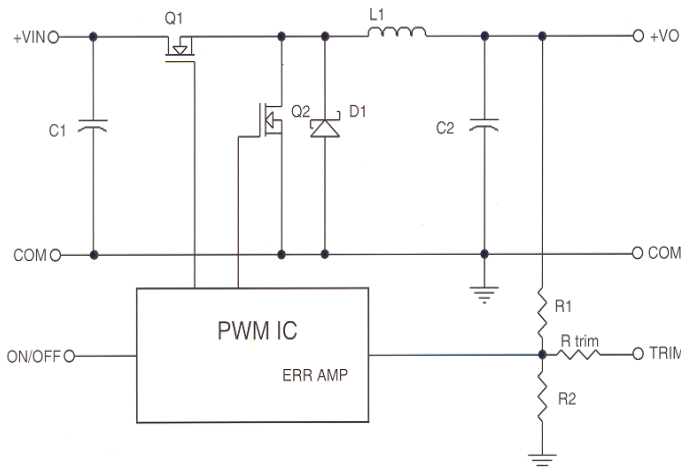


Fig 2.: Typical Derating Curve of BSMT05-05 series

Trim Resistor Values



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

Fig 3.: Simplified Schematic

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.