

DC-DC Converter UNIT

OSN10W SERIES

FEATURES

- 0.75~5.0 V out / 10 Amp SIP/SMD Package
- 8.3~14V Input Voltage
- High efficiency
- Cost efficient open frame design
- 2 YEARS WARRANTY
- RoHS compliant



OUTPUT SPECIFICATIONS

Voltage Set point Accuracy	+/-2% max
Ripple & Noise (20MHz BW) ¹	100mVp-p max
Line Regulation ²	+/-0.3% max
Load Regulation ³	+/-0.4% max
Temperature Coefficient	+/-0.4% max
Short Circuit Protection	Continuous
Over Load Protection	180% Typ

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

INPUT SPECIFICATIONS

Input Voltage Range	8.3 – 14V
Input Filter	Capacitive
Remote On/Off Control	Table 1

GENERAL SPECIFICATIONS

Efficiency	90% min
Switching Frequency	300KHz Typ
Isolation voltage	Non-isolation
Weight OSN10WH	6,5 g Typ
Weight OSN10WS	6,0 g Typ
SIP Package OSN10WH	50.8mm*13.0mm*10.7mm
OSN10WS	33.0mm*13.5mm*7.6mm

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25 °C UNLESS OTHERWISE NOTED.

[1] The value includes the deviation from output voltage setting point, line and load.

[2] High Line to Low Line.

[3] Load Regulation is for output load current change from 10% to 100% Load

[4] Refer to the Derating Chart.

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 Email: Info@Power-Systems.de

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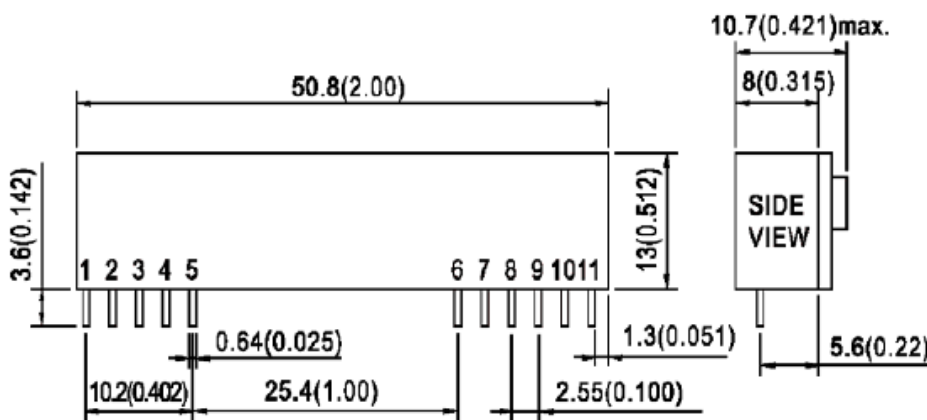
SELECTION GUIDE (1)

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (A)	EFFICIENCY (%) ^[6] 12Vin, 3.3Vdc@10A
OSN10WHN ^[7]	Vo(set) ≤ 3.63 Vin = 8.3-14	0.75 ~ 5.0	10A	92
OSN10WHN ^[8]	Vo(set) > 3.63 Vin = 8.3-14			

Note: Other input to output voltages may be available. Please contact factory.

MECHANICAL DIMENSIONS

OSN10WH PACKAGE

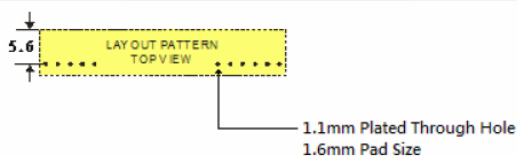


All dimensions are in millimeters [inches]

PIN	Single
1	+Vout
2	+Vout
3	SENSE
4	+Vout
5	Common
6	Common
7	+Vin
8	+Vin
9	NC
10	TRIM
11	On/Off Control

RECOMMENDED FOOTPRINT DETAILS

OSN10WH PACKAGE



[6] Nominal Input voltage, full load.
 [7] OSN10WHN ON/OFF – Negative Logic.
 [8] OSN10WHP ON/OFF – Positive Logic..

NOTE : Pin Size is Tolerance 0.64Φ ±0.10mm

All Dimensions In mm(Inches)

Tolerance .X or .XX= ±0.5mm

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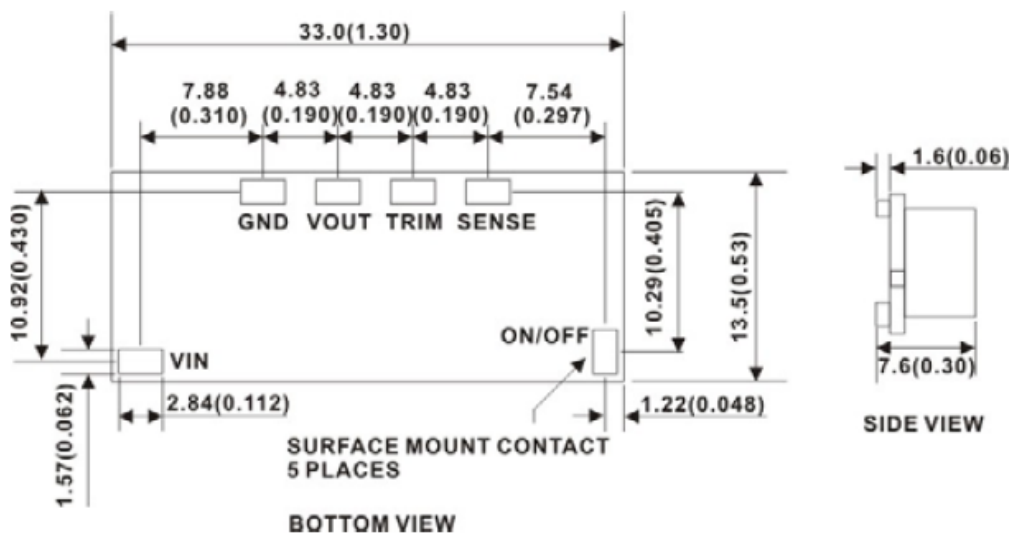
SELECTION GUIDE (2)

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (A)	EFFICIENCY (%) ^[9] 12Vin, 3.3Vdc@10A
OSN10WSN ^[10]	Vo(set) ≤ 3.63 Vin = 8.3-14	0.75 ~ 5.0	10A	92
OSN10WSP ^[11]	Vo(set) > 3.63 Vin = 8.3-14			

Note: Other input to output voltages may be available. Please contact factory.

MECHANICAL DIMENSIONS

OSN10WS PACKAGE



NOTE :

All Dimensions In mm(Inches)

Tolerance : X.X±0.5(X.XX±0.02)

X.XX±0.25(X.XXX±0.01)

Pin pitch tolerance ±0.25(±0.01)

Pin dimension tolerance ±0.1(±0.004)

[6] Nominal Input voltage, full load.

[7] OSN10WSN ON/OFF – Negative Logic.

[8] OSN10WSP ON/OFF – Positive Logic..

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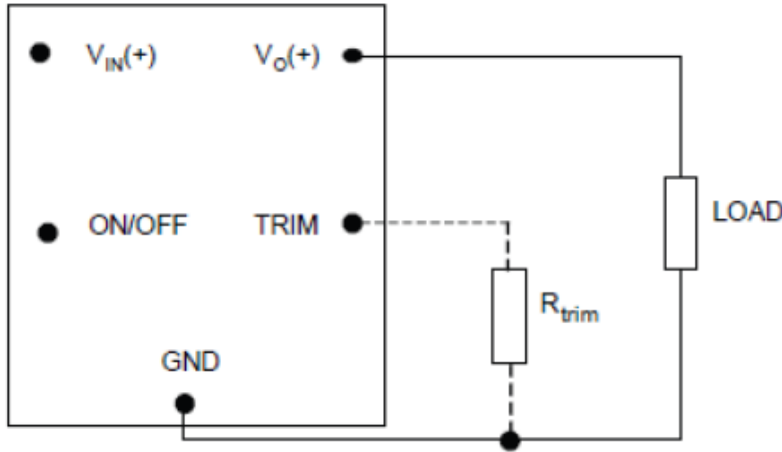
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EXTERNAL RESISTOR VALUES FOR PROGRAMMING OUTPUT VOLTAGE

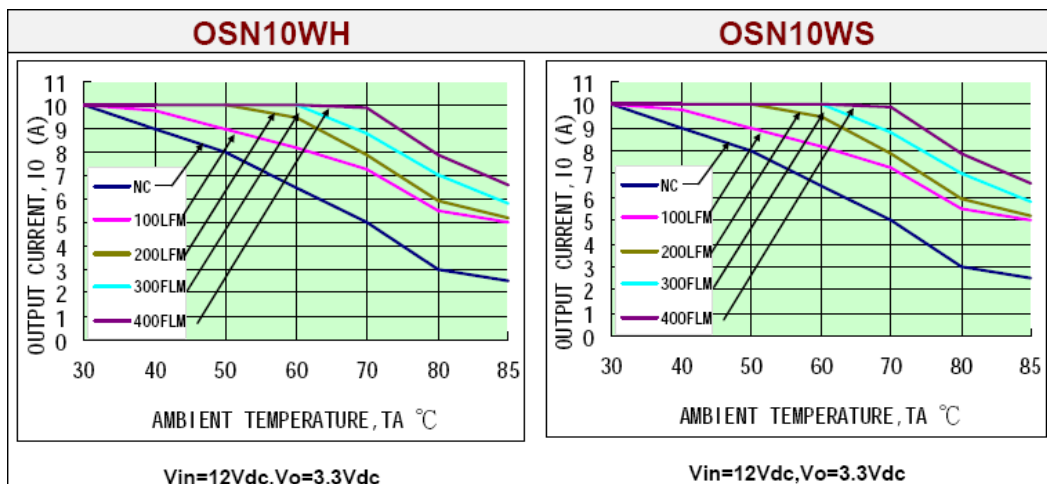


Vout	Rtrim(K ohm)
0.7525	Open
1.2	22.46
1.5	13.05
1.8	9.024
2.0	7.417
2.5	5.009
3.3	3.122
5.0	1.472

TABLE 1 (Remote On/Off Control)

Remote On/Off Control Voltage		
Negative logic (standard)	ON = $0V < V_r < 0.3V$ OFF = $2.5V < V_r < V_{in} (max)$	lin = 10uA, max lin = 1mA, max
Positive logic (option)	ON = $(V_{in}-4) < V_r < V_{in}(max)$ OFF = $0V < V_r < 0.3V$	lin = 10uA, max lin = 1mA, max
Remote off state input current	Nominal V_{in}	2.0mA, typ
Input current of Remote control pin		10uA~1.0mA

DERATING CURVE



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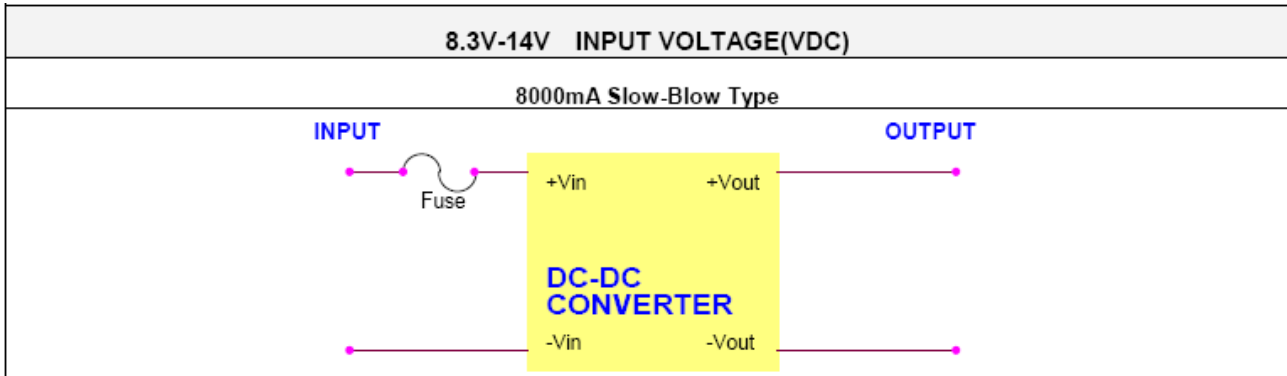
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● INPUT FUSE SELECTION GUIDE



Note: Certain applications may require the installation of external fuse in front of the input.

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