Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
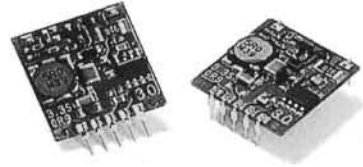
Contact us

Boost from Low Input Voltage to 3.3-5.0V!

RoHS Compliance

Step-up DC-DC

3 Watt VUP Series

Minimum Size, Step-Up DC-DC Converter

Input: 1.3V to 4.2V   Output: 3.3V (3.3V to 5.0V)

Voltage can be optionally set with external resistors. (Ex.: 3.3V, 4.0V, 5.0V)

- Efficiency 86% (at 0.7A load)
- Efficiency 90% (at 0.5A load)
- Latest Technology, Synchronous Rectification Circuit
- Non-Isolated Type Converter
- Wide Input Voltage Range
- Remote ON/OFF Control
- Adjustable Output Voltage
- High Reliability, High Performance
- Operating Temp Range
  -20°C to +70°C
  (Temp Derating Required)
- RoHS Compliance

Models VUP Series	Input V Vdc	Output V Vdc	Output I A	Line Reg. %(typ.)	Load Reg. %(typ.)	Ripple Noise mVpp(typ.)	Efficiency %(typ.)
VUP-3.3S0R9 VUP-3.3S0R9D	1.3-(4.2)	3.3	0-0.9			10	82 (86)

Note 1: Regarding this converter, for normal operation the output voltage needs to be higher than that of the input voltage.
  Input voltage range at 3.3V output ------ 1.3V-2.8V
  Input voltage range at 5.0V output ------ 1.3V-4.2V
Note 2: Ripple noise, efficiency value is when input voltage is at 2.5V.
Note 3: Efficiency ( ) value is at 0.7A load.
Note 4: Ripple noise is measured at 20MHz bandwidth.
Note 5: Depending on the ambient air temp conditions, air flow cooling is required.
Note 6: For this product, there is a limit of max. output current depending on the input voltage. Refer to the data sheet.
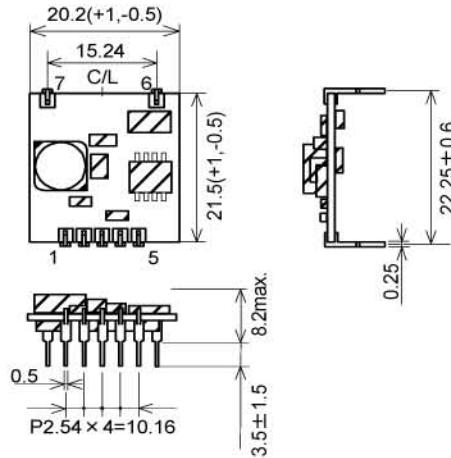
<Outline>
VUP-3.3S0R9 (SIP type)

20.2(+1,-0.5)
C/L
21.5(+1,-0.5)
24max.
0.5
P2.54×4=10.16
3.5±1.5
6.8max.
0.8
1.5typ.
3.0typ.
0.25
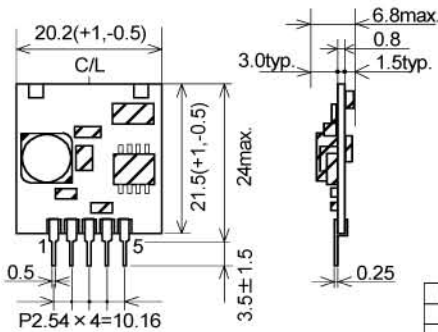
Pin	Function
1	ON/OFF
2	Vin
3	GND
4	Vout
5	V.ADJ

Weight: 3g typ.
Units: mm

VUP-3.3S0R9D (DIP type)

20.2(+1,-0.5)
15.24
C/L
7   6
21.5(+1,-0.5)
1   5
22.25±0.6
0.25
0.5
P2.54×4=10.16
8.2max.
3.5±1.5

Pin	Function
1	ON/OFF
2	Vin
3	GND
4	Vout
5	V.ADJ
6	Test pin *1
7	NC

Weight: 3g typ.
Units: mm

*1 This pin is for testing.
  Do not connect to anywhere.

<Standard Connection Diagram>

+Vin 2
4 +Vout
Vin
C1
100μF or more
ON/OFF
1
GND
3
5 V.ADJ
C2
100μF (Recommended value)
Load
R1
R1: Output Voltage adjustable resistor
Tr1
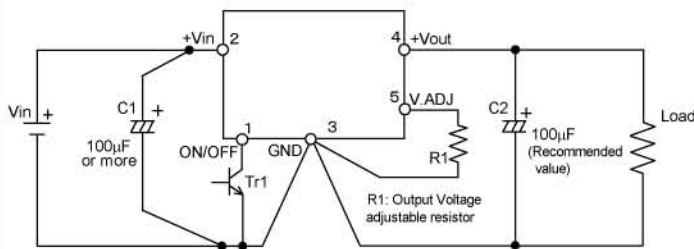
Tr1
OFF ——→ Output ON
ON ——→ Output OFF
ON: Between 1pin and 3pin
    (-0.3 to +0.4V)

- When not using the ON/OFF control, keep the ON/OFF pin open.
- When not adjusting the output, keep the V.ADJ pin open.
- Low impedance product should be used for the input capacitor (C1), and put close to the pins (2pin, 3pin).
- Be sure to use an input and output capacitor. Output capacitor: ESR・ 25mΩ.

- Note!
This catalogue is an outline of the products.
When designing, be sure to refer to the data sheets.