

Vin: ~5.5V PD:24W Output Boost(Step-up) DC-DC Converter

■ GENERAL DESCRIPTION

The FH47121 is a high frequency, high efficiency DC to DC converter with an integrated 12.0A, 25mΩ power switch capable of providing an output voltage up to 24.0V. The fixed 600KHz allows the use of small external inductions and capacitors and provides fast transient response. It integrates Soft start, Comp. only need few components outside.

It can output 6.0V/3.5A, 9.0V/2.0A when 3.3V Battery input and output 6.0V/4.5A, 9.0V/3.0A when 3.6V Battery input at good heat dissipation condition

■ PACKAGE

- ESOP-8L

■ Typical Application

■ FEATURES

- Input voltage Range: 2.7V to 5.5V
- Efficiency up to 96%
- 24.0V Boost converter with 12.0A switch current Limit
- 600KHz fixed Switching Frequency
- Integrated soft-start
- Thermal Shutdown
- Under voltage Lockout
- Support external LDO auxiliary power supply
- 8-Pin ESOP Package

■ APPLICATIONS

- Portable Audio Amplifier Power Supply
- Power Bank
- POS Printer Power Supply
- Small Motor Power Supply
- QC 2.0 / PD Type C
- Wireless Charger

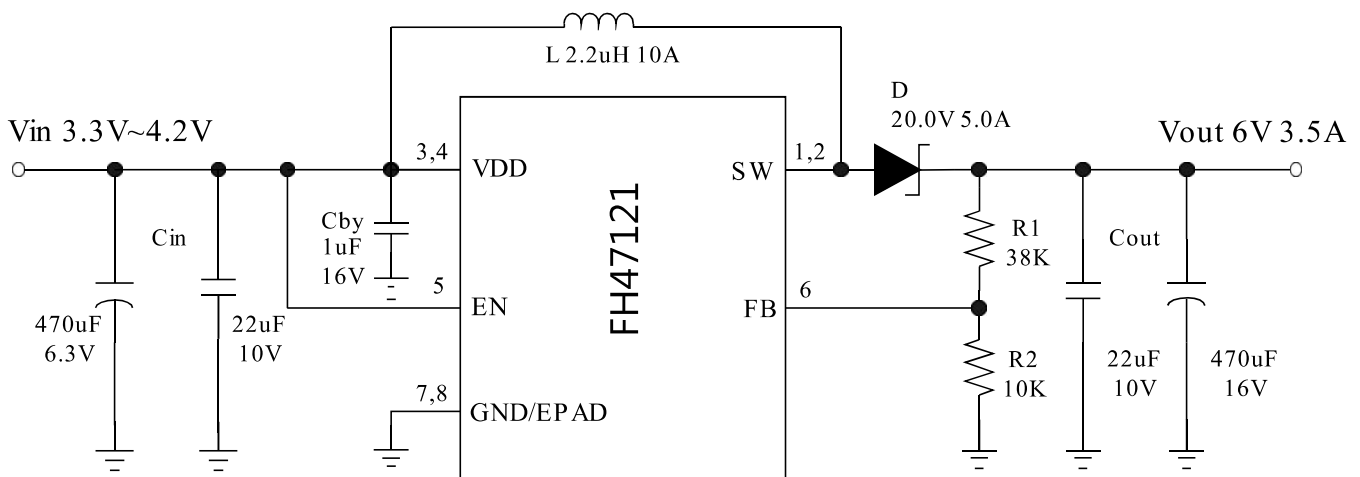


Figure 1. **Typical Application Circuit 1**
(for Single cell Li-Battery)

■ Typical Application (Cont.)

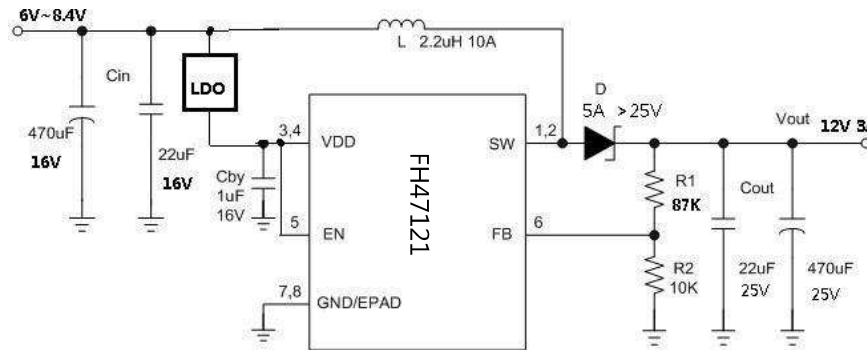


Figure 2. **Typical Application Circuit 2**
(for Dual cell Li-Battery)

■ PIN CONFIGURATION

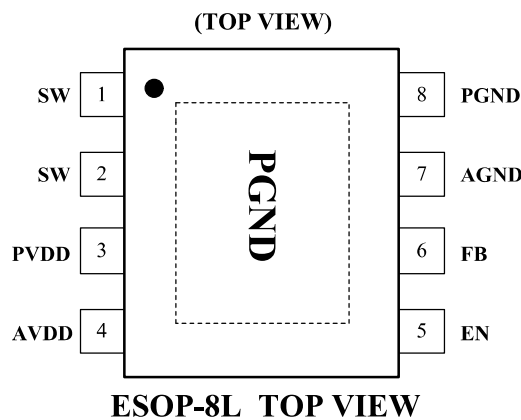


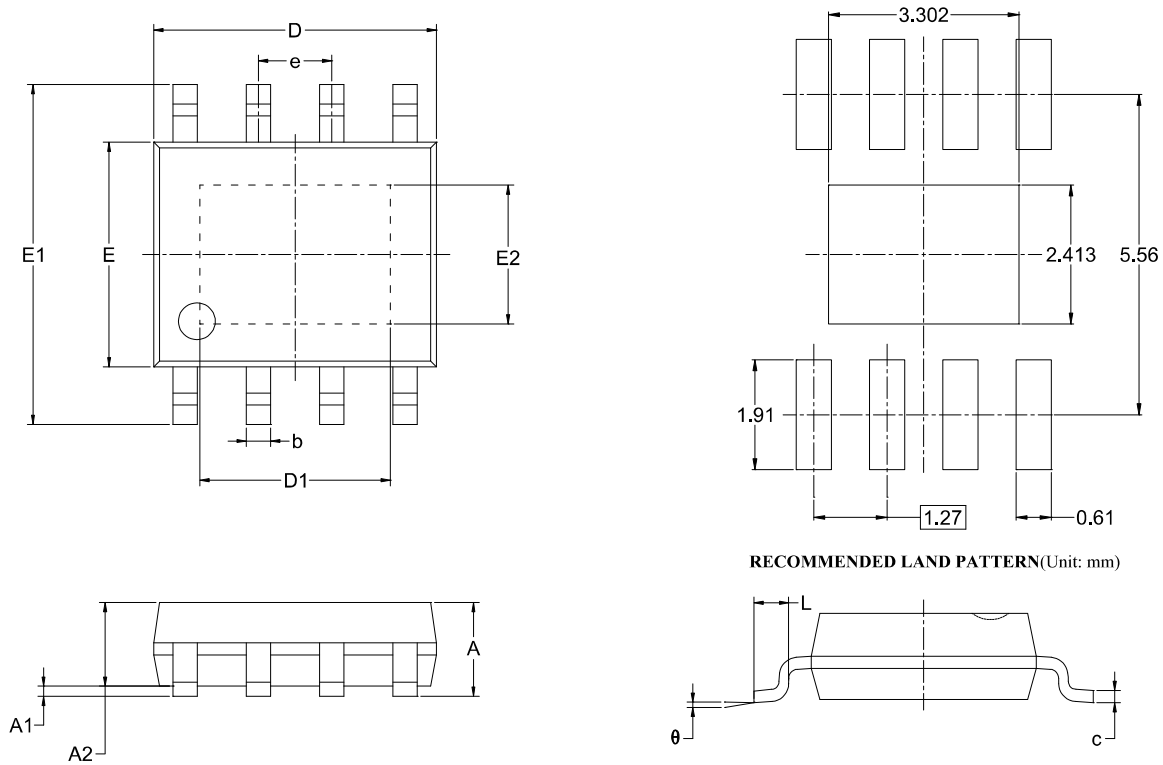
Figure 3. **PIN Configuration**

■ PIN DESCRIPTION

PIN NUMBER	PIN NAME	PIN DESCRIPTION
1,2	SW	Switch pin
3	PVDD	Input power supply pin, please connect with Cin close asp
4	AVDD	Boost IC Logic power supply pin, if far from Cin, please add one 1.0uF MLCC close asp
5	EN	Shutdown control input., Connect this pin to logic high level to enable the device
6	FB	Feedback pin
7	AGND	Analog ground
8	PGND	Power ground
EPAD	PGND	Please connect with PGND & AGND by mass metal for Low Rdson, High efficiency & Good heat dissipation

■ PACKAGE OUTLINE

● ESOP-8L PACKAGE OUTLINE AND DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A		1.700		0.067
A1	0.000	0.100	0.000	0.004
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.700	5.100	0.185	0.201
D1	3.202	3.402	0.126	0.134
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
E2	2.313	2.513	0.091	0.099
e	1.27 BSC		0.050 BSC	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

In order to increase the driver current capability of FH47121 and improve the temperature of package, Please ensure Epad and enough ground PCB to release energy.

ORDERING INFORMATION

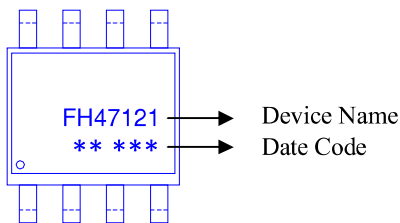
PART NUMBER	TEMP RANGE	Description	ILIM (A)	Top Mark	PACKAGE	SPQ
FH47121S08	-40°C to 85°C	Freq.:600KHz Vout: ADJ	12.0	FH47121 ** **	ESOP-8L	2500PCS/Reel

Note:

- FH47121 devices are Pb-free and RoHS compliant.
- The surface prints of our semiconductor devices are subject to change during the production process and do not involve changes in electrical parameters, and we will not separately state the notice.



MARKING INFORMATION



ESD SENSITIVITY CAUTION

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.



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➤ Update by Dec.2019