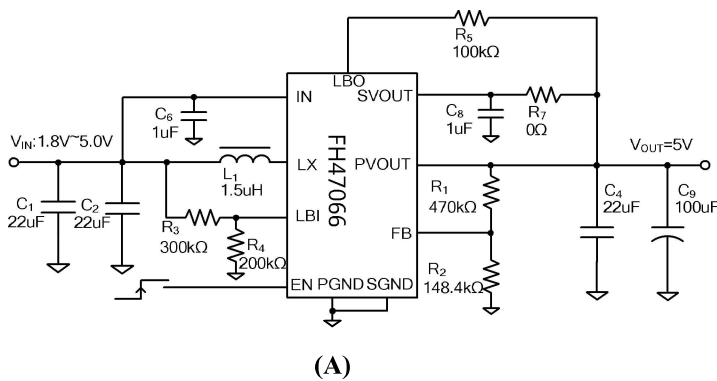


DC-DC Boost Synchronous Vin~5.5V Iout:6.0A 500kHz

General Description

The FH47066/FH47066A is a high efficiency synchronous boost regulator that converts down to 1.8V input and up to 5.5V output voltage. It adopts N MOSFET for the main switch and P MOSFET for the synchronous switch. It can disconnect the output from input during the shutdown mode.

Typical Applications



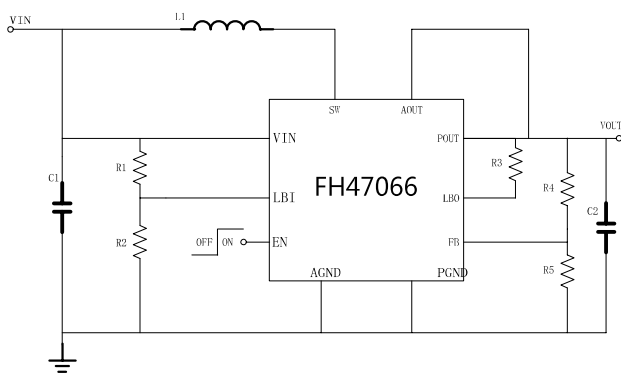
(A)

Features

- Input voltage range: 1.8V to 5.5V
- Adjustable output voltage from 2.5V to 5.5V (6.0A peak current limit)
- Input under voltage lockout
- Load disconnect during shutdown
- Output over voltage protection
- Input battery voltage monitor
- Low Rds(on)(main switch/synchronous switch) at 5.0V output: 20/40mohm
- Automatic output discharge at shutdown:
 - FH47066: Auto output discharge function
 - FH47066A: No output discharge function
- Compact package: QFN2*2-10L

Applications

- USB Power Supply
- Battery Powered Products
- All Single Cell Li or Dual Cell Battery Operated
- Products as MP-3 Player, PDAs, and Other Portable Equipment.



(B)

Figure 1. Schematic Diagram

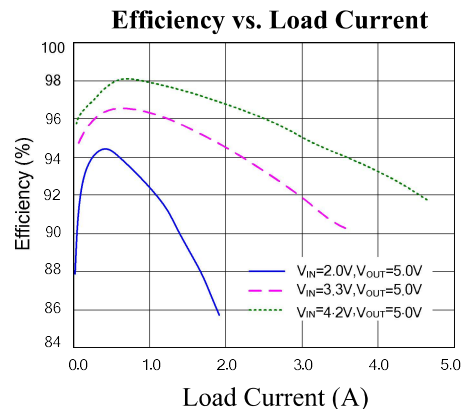
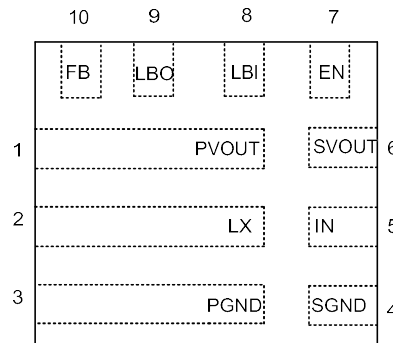


Figure 2. Efficiency Figure

■ Pin Configuration



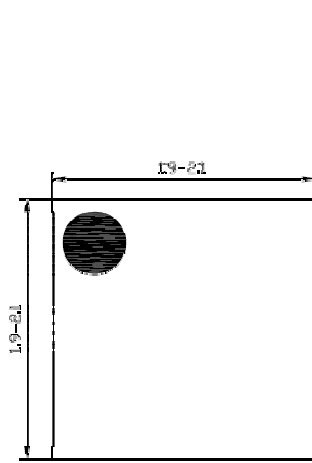
QFN2*2-10L (top view)

■ Pin Assignment

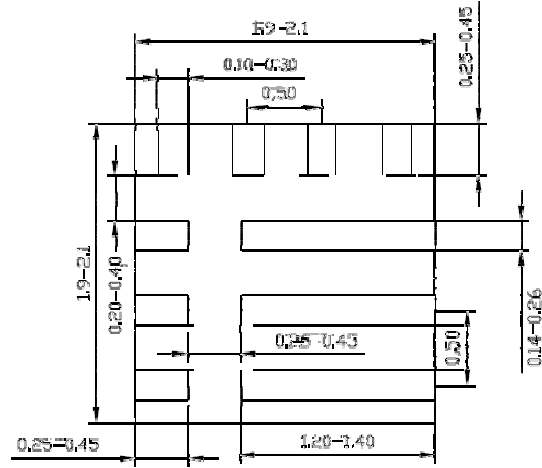
QFN2*2-10L		Functions
Pin Number	Pin Name	
1	PVOUT	Power output pin. Decouple this pin to GND pin with at least 22uF ceramic cap.
6	SVOUT	Signal output pin. Decouple this pin to GND pin with at least 1.0uF ceramic cap for noise immunity consideration.
2	LX	Inductor node. Connect an inductor between IN pin and LX pin.
3	PGND	Power ground pin.
4	SGND	Signal ground pin.
5	IN	Signal input pin.
7	EN	Enable pin. Internal integrated with 1Mohm pull down resistor.
8	LBI	Low battery comparator input.
10	FB	Feedback pin. Connect a resistor R1 between OUT and FB, and a resistor R2 between FB and GND to program the output voltage. $V_{OUT} = 1.2V * (R_1/R_2 + 1)$.
9	LBO	Low battery comparator output, (open drain).

■ Package Information

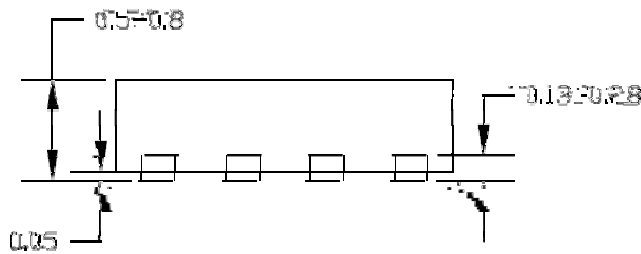
Type: QFN2*2-10L



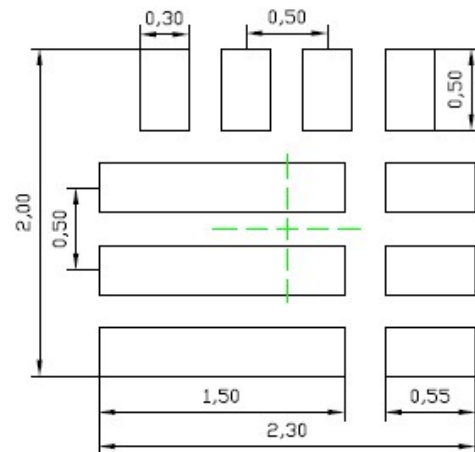
Top View



Bottom View



Side View



Recommended PCB Layout

(Reference only)

Notes: All dimension in MM and exclude mold flash & metal burr.

■ Ordering Information

Ordering Number	Ambient Temperature Range	Package type	Top Mark	SPQ
FH47066N10	-40°C to 85°C	N10: QFN2*2-10L	** x y z (Device code: **, x:year code, y:week code, z: lot number code)	3000PCS/Reel
FH47066AN10	-40°C to 85°C	N10: QFN2*2-10L		3000PCS/Reel

Note:

- FH47066 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.
- If you need other voltage and package, please contact our sales staff.



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.

Note:

- The information described herein is subject to change without notice.
- ForDevices Inc. is not responsible for any problems caused by circuits or diagrams described herein whose related industrial properties, patents, or other rights belong to third parties. The application circuit examples explain typical applications of the products, and do not guarantee the success of any specific mass-production design.
- Use of the information described herein for other purposes and/or reproduction or copying without the express permission of ForDevices Inc. is strictly prohibited.
- The products described herein cannot be used as part of any device or equipment affecting the human body, such as exercise equipment, medical equipment, security systems, gas equipment, or any apparatus installed in airplanes and other vehicles, without prior written permission of ForDevices Inc.
- Although ForDevices Inc. exerts the greatest possible effort to ensure high quality and reliability, the failure or malfunction of semiconductor products may occur. The user of these products should therefore give thorough consideration to safety design, including redundancy, fire-prevention measures, and malfunction prevention, to prevent any accidents, fires, or community damage that may ensue.

➤ Update by May.2018