

DC-DC Boost Synchronous ~ 5.5V 3.0A Peak Current

General Description

FH47063 is a high efficiency synchronous boost regulator that converts down to 1.8V input and up to 5.5V output voltage. It adopts NMOS for the main switch and PMOS for the synchronous switch. It can disconnect the output from input during the shutdown mode.

Applications

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

Features

- 1.8V Minimum input voltage
- Adjustable output voltage from 2.5V to 5.5V
- 3A peak current limit
- Input under voltage lockout
- Load disconnect during shutdown
- Output over voltage protection
- Input battery voltage monitor
- Low $R_{DS(ON)}$ (main switch/synchronous switch) at 5.0V output: 36/40mohm
- Output auto-discharge function
- Compact package: QFN2x2-10L

Typical Applications

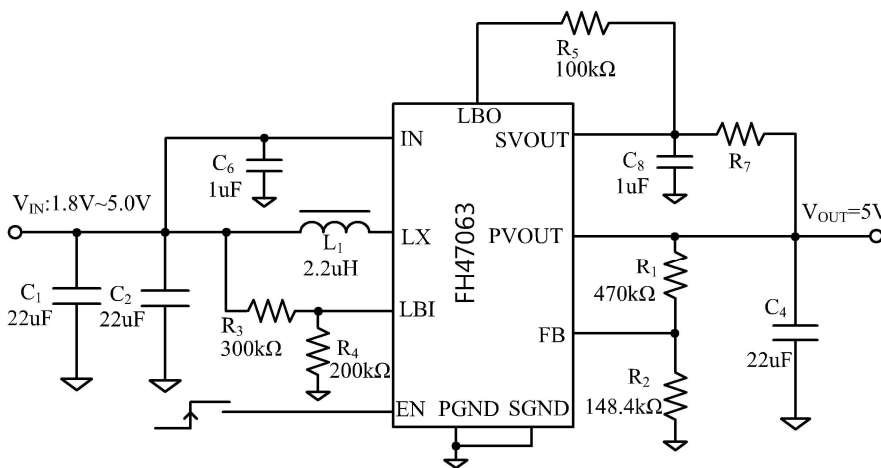


Figure 1. Schematic Diagram

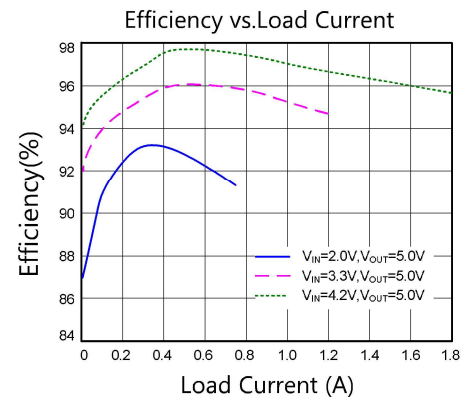
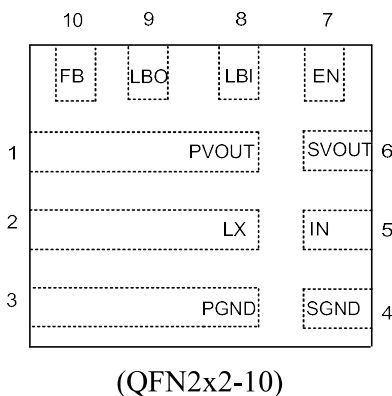


Figure 2. Efficiency Figure

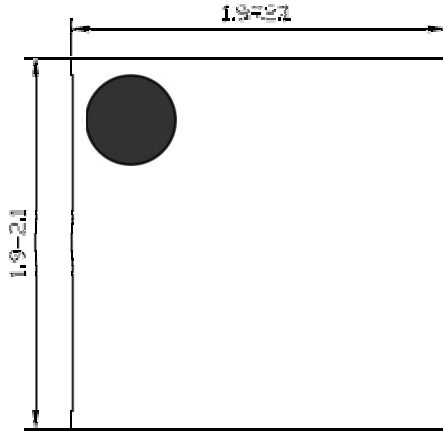
PIN Description (top view)



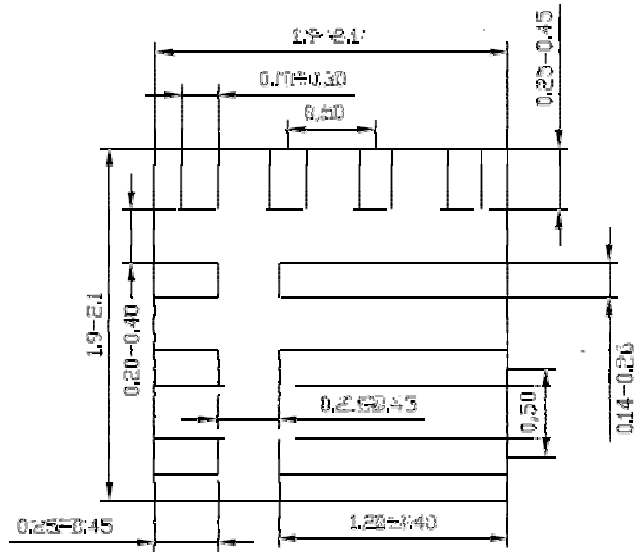
FH47063		Description
Name	QFN2*2-10L	
PVOUT	1	Power output pin. Decouple this pin to GND pin with at least 22uF ceramic cap.
SVOUT	6	Signal output pin. Decouple this pin to GND pin with at least 1.0uF ceramic cap for noise immunity consideration.
LX	2	Inductor node. Connect an inductor between IN pin and LX pin.
PGND	3	Power ground pin.
SGND	4	Signal ground pin.
IN	5	Signal input pin.
EN	7	Enable pin. Internal integrated with 1Mohm pull down resistor.
LBI	8	Low battery comparator input.
FB	10	Feedback pin. Connect a resistor R1 between OUT and FB, and a resistor R2 between FB and GND to program the output voltage. $V_{OUT} = 1.2V * (R1/R2 + 1)$.
LBO	9	Low battery comparator output, (open drain).

FC Package Outline

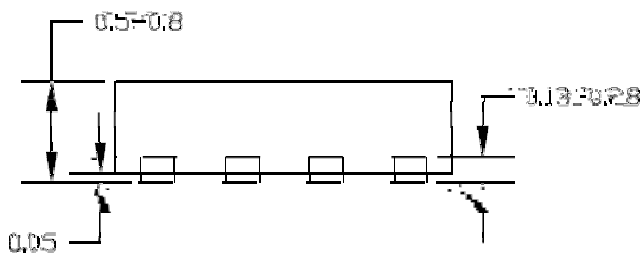
QFN2x2-10L



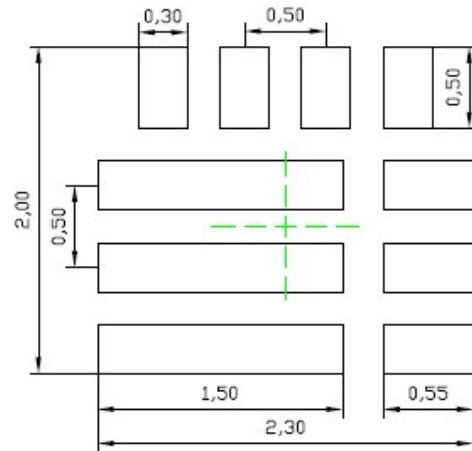
Top View



Bottom View



Side View



Recommended PCB Layout
(Reference only)

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

Ordering Information

Ordering Number	Temperature Range	Package type	Top Mark	SPQ
FH47063D10	-40°C to 85°C	QFN2*2-10L	UJ x y z (UJ: Device code x y z: date code)	3000PCS/Reel

Note:

- **FH47063** devices are Pb-free and RoHs compliant.
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