

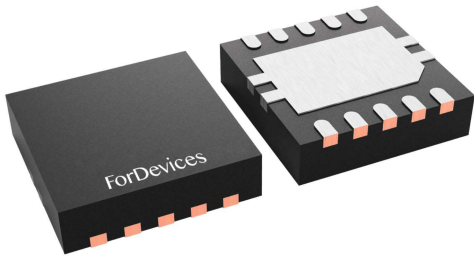
High Efficiency, Up to 33V, 4A Peak, 1.0MHz, DC-DC Boost(Step-Up) Regulator

PRELIMINARY DATASHEET

General Description

The FH47304 is a high efficiency, current-mode control boost regulator. The device integrates a 120mΩ low $R_{DS(ON)}$ N-channel MOSFET for high efficiency. The fixed 1.0MHz switching frequency and internal compensation reduce external components size and count. The build-in internal soft start circuitry minimizes the inrush current at start-up.

The FH47304 is available in compact DFN3*3-10L package.



Features

- Wide input range: 3.0 ~ 33.0V
- Maximum output voltage: 33.0V
- Switching frequency: 1.0MHz
- Integrated 120mΩ $R_{DS(ON)}$ switch with 4.0A peak current capability
- Internal soft-start
- Reference voltage: 0.6V(±2%)
- Cycle by cycle peak current limit
- Over temperature protection
- RoHs Compliant and Halogen Free
- Compact package: DFN3*3-10L

Applications

- Portable Device
- Battery Powered System
- Networking cards powered from PCI or PCI-express slots

Typical Applications

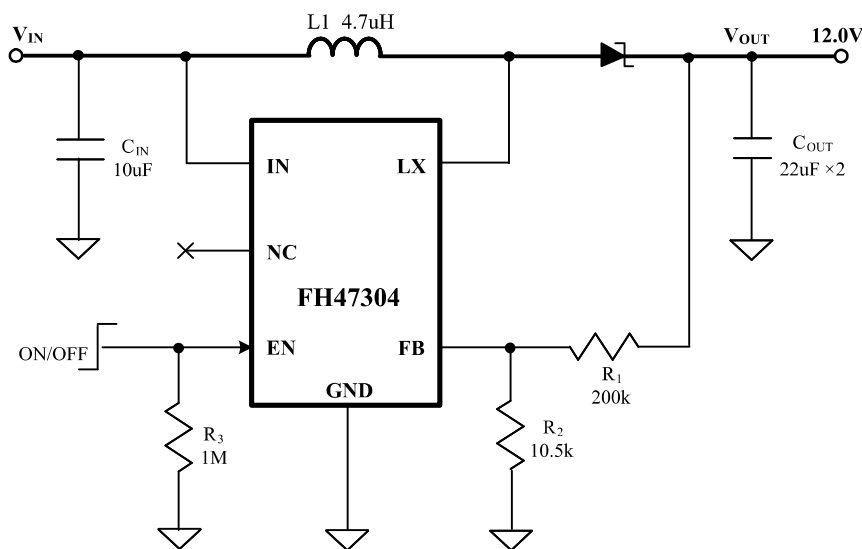


Figure 1. FH47304 Schematic Diagram

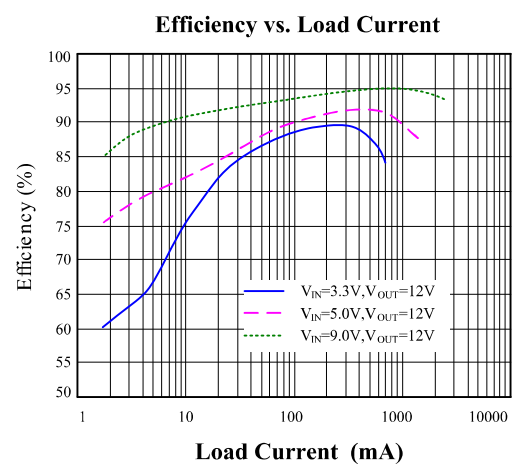
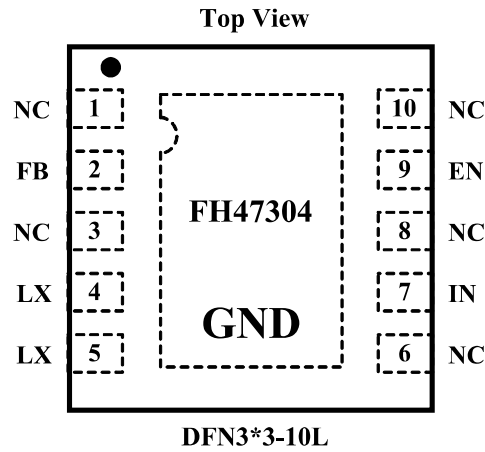


Figure 2. Efficiency vs. Load Current

PIN Configuration



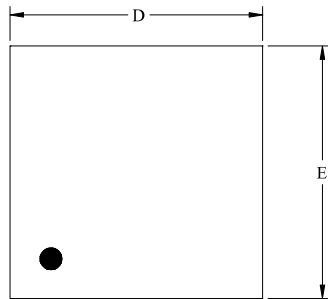
PIN Description

Pin Name	Pin Number	Pin Description
IN	7	Input pin. Decouple this pin to GND pin with 1uF ceramic cap.
GND	11	Ground pin
LX	4,5	Inductor node. Connect an inductor between IN pin and LX pin.
FB	2	Feedback pin. Connect a resistor R1 between V _{OUT} and FB, and a resistor R2 between FB and GND to program the output voltage: $V_{OUT}=0.6V*(R1/R2+1)$.
EN	9	Enable control. High to turn on the part. Don't leave it floated.
NC	1,3,6,8,10	No connection.

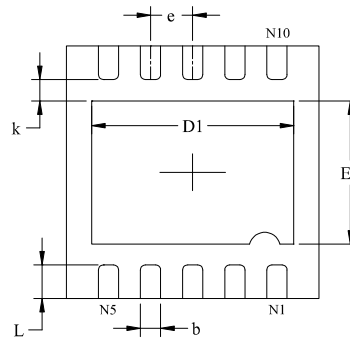
Package Outline

PRELIMINARY DATASHEET

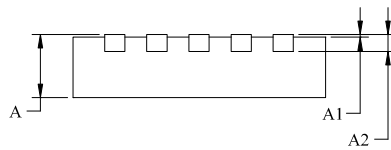
DFN3*3-10L



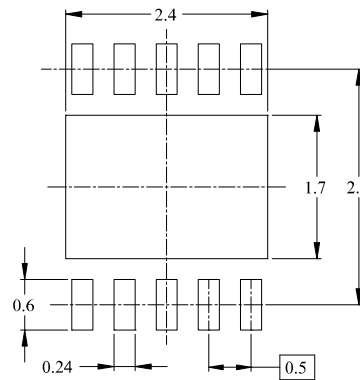
TOP VIEW



BOTTOM VIEW



SIDE VIEW



RECOMMENDED LAND PATTERN

(Unit: mm)

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	0.700	0.800	0.028	0.031
A1	0.000	0.050	0.000	0.002
A2	0.203 REF		0.008 REF	
D	2.900	3.100	0.114	0.122
D1	2.300	2.600	0.091	0.103
E	2.900	3.100	0.114	0.122
E1	1.500	1.800	0.059	0.071
k	0.200 MIN		0.008 MIN	
b	0.180	0.300	0.007	0.012
e	0.500 TYP		0.020 TYP	
L	0.300	0.500	0.012	0.020

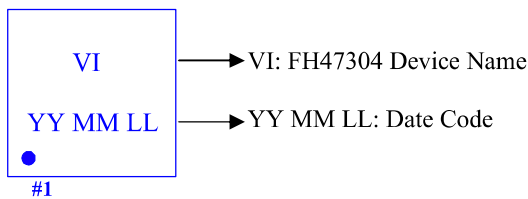
Ordering Information

Part Number	Voltage Range	Features	Operating Temperature	Package Type	Top Mark	SPQ
FH47304D10	3.0V ~ 33.0V	<ul style="list-style-type: none"> • DC-DC boost(step-up) • Peak current: 4.0A • Efficiency: 95% • Output voltage: ~33.0V • Switch Frequency: 1.0MHz • FB voltage: 0.6V(±2%) 	-40°C to 85°C	DFN3*3-10L	VI YY MM LL	5000PCS/Reel

Note:

- **FH47304** 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 have any other custom purchase needs, please contact our sales department.
- ForDevices reserves the right to amend and legally interpret the electrical parameters of this chip device. (<http://www.fordevices.com>)

Device Name: DFN3*3-10L



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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