

1.0MHz High Output current High Efficiency Synchronous Step-Up Converter

■ **DESCRIPTION**

FH4302 is an ForDevices’ high efficiency, high frequency synchronous Step-Up converter, capable of delivering output current up to 3A at a 5V output from a 3.6V input. With a low R_{dson} Power MOS and a built-in synchronous rectifier, its efficiency can be as high as 91% at a 5V/2.1A load. This greatly minimizes power dissipation and reduces heat on the IC, making it ideal for applications that require small board space and have stringent temperature constraints, such as power banks and mobile devices.

FH4302 also incorporates ForDevices’ technology that protects against overload and short-circuit conditions. All of these features are integrated in a tiny DFN3*3-12L package. With 1.0MHz switching frequency, small external input and output capacitors and inductor can be used.

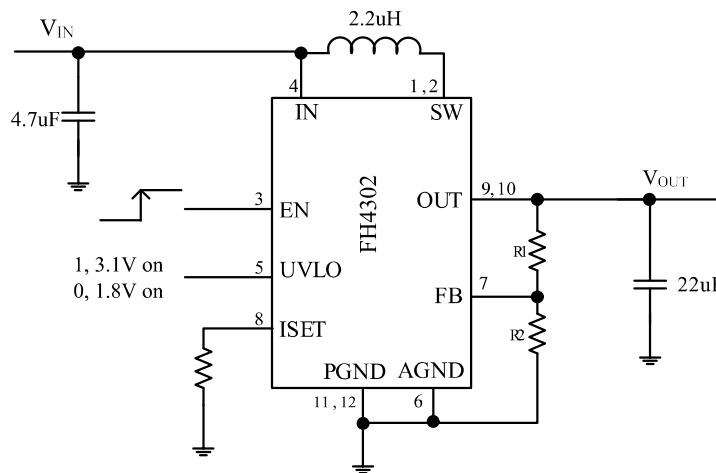
■ **FEATURES**

- ◆ Up to 97% Energy Converting Efficiency
- ◆ Up to 3A output current at 5V output, 3.6V input
- ◆ Externally adjustable output voltage
- ◆ True Shut off during shutdown and output short-circuit protection
- ◆ Thermal Shutdown
- ◆ DFN3*3-12L

■ **APPLICATIONS**

- ◆ 3G/4G PCI-e module
- ◆ Power Bank
- ◆ Mobile 3G/4G Mi-Fi
- ◆ Mobile Bluetooth music player and speaker

■ **TYPICAL APPLICATION**

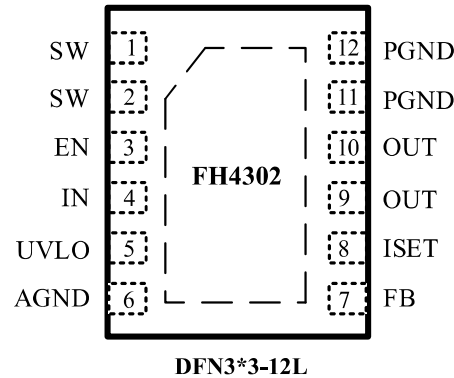


■ **ORDERING INFORMATION**

PART	Voltage Output	PACKAGE	SPQ	TOP MARK
FH4302D12	ADJ	DFN3*3-12L	4000PCS/Reel	***** YWW2L

➤ The surface prints of our device products are subject to change in the production process and will not be notified separately if changes in electrical parameters are not involved.

■ PIN CONFIGURATION

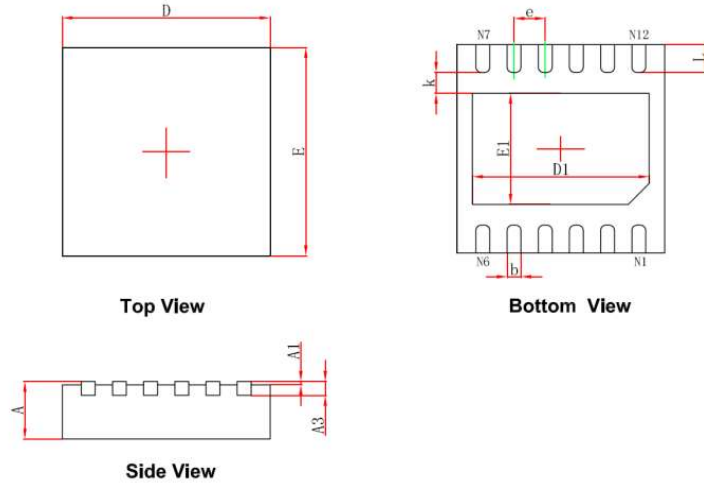


■ PIN DESCRIPTION

PIN #	NAME	DESCRIPTION
1,2	SW	Switching node of the Switching Regulator. Connect a 1uH to 2.2μH inductor between IN and SW pin.
3	EN	Enable pin for the IC. Drive this pin high to enable the IC, low or floating to disable.
4	IN	Input pin. Bypass IN to GND with a 10uF or greater ceramic capacitor.
5	UVLO	Select IN UVLO.
6, Thermal pad	AGND	Analog ground pin. AGND is internally connected to the analog ground of the control circuitry.
7	FB	Feedback Input. Connect an external resistor divider from the output to FB and GND to set V_{OUT}
8	ISET	Programmable peak-current-limit control. Connect an external resistor (R_{iset}) between ISET and AGND to set the peak NMOS current-limit threshold. The current- limit threshold may be adjusted from 0.6A to 5.0A, And if follows following equation: $I_{peak} = \frac{180}{R_{iset}} \times 1000 (A)$
9,10	OUT	Output pin. Bypass with a 22μF or larger ceramic capacitor closely between this pin and ground.
11,12	PGND	Power ground pin.

■ PACKAGE OUTLINE

- Type: DFN3*3-12L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700/0.800	0.800/0.900	0.028/0.031	0.031/0.035
A1	0.000	0.050	0.000	0.002
A3	0.203REF.		0.008REF.	
D	2.924	3.076	0.115	0.121
E	2.924	3.076	0.115	0.121
D1	2.450	2.650	0.096	0.104
E1	1.500	1.700	0.059	0.067
k	0.200MIN.		0.008MIN.	
b	0.150	0.250	0.006	0.010
e	0.450TYP.		0.018TYP.	
L	0.324	0.476	0.013	0.019