1.2MHz, 30.0V, 0.6A Peak Current, Boost(Step-Up) Converter

General Description

The FH2128 is a boost(step-up) converter. Its 1.23V feedback voltage reduces power loss and improves efficiency.

Optimized operation frequency can meet the requirement of small LC filters value and low operation current with high efficiency. Internal soft start function can reduce the inrush current. Tiny package type provides the best solution for PCB space saving and total BOM cost.

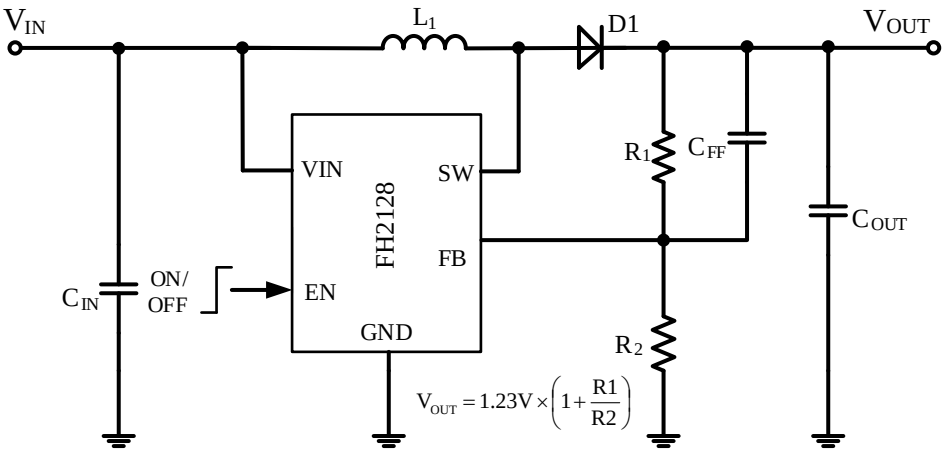
Features

- 2.5V to 5.5V Input Voltage
- 1.23V Feedback Voltage
- 1.2MHz Fixed Switching Frequency
- Internal 0.6A Switch Current Limit
- Internal Compensation
- Thermal Shutdown
- Available in a 5-pin SOT-23 package

Applications

- Camera Flash White LED
- Digital still cameras
- PDA LED back light

Typical Application Circuit



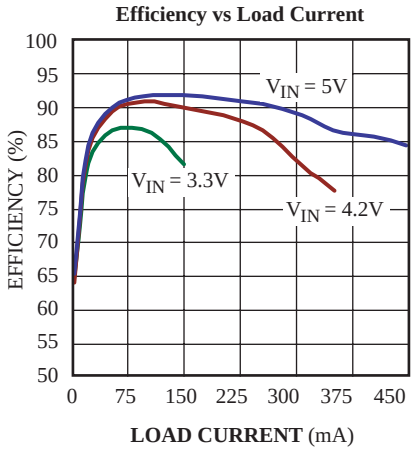


Figure 1. Basic Application Circuit

Block Diagram

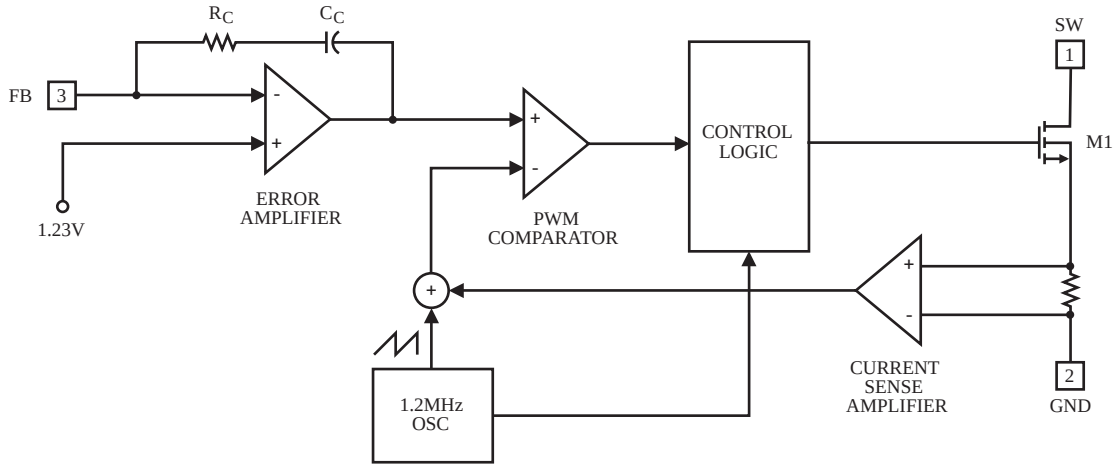
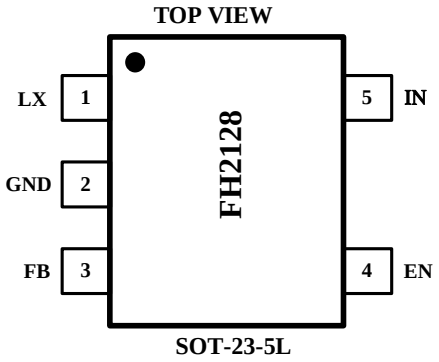


Figure 2. Functional Block Diagram

PIN CONFIGURATIONS

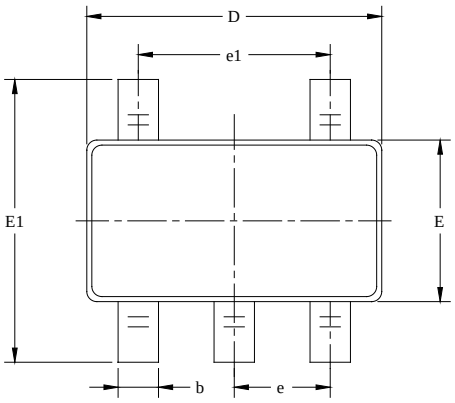


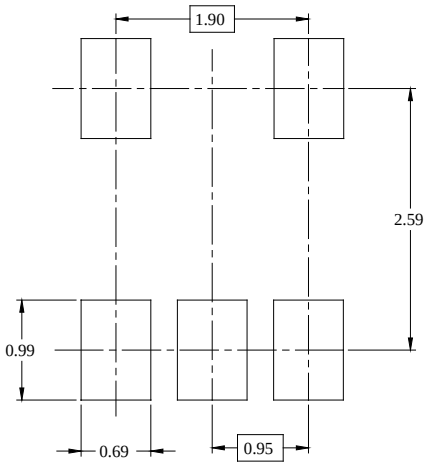
PIN DESCRIPTION

Pin	Name	Function
1	LX	Power Switch Output. LX is the drain of the internal MOSFET switch. Connect the power inductor and output rectifier to LX. LX can swing between GND and 30V.
2	GND	Ground Pin
3	FB	Feedback Input. The FB voltage is 1.23V. Connect a resistor divider to FB.
4	EN	Regulator On/Off Control Input. A high input at EN turns on the converter, and a low input turns it off. When not used, connect EN to the input supply for automatic startup.
5	IN	Input Supply Pin. Must be locally bypassed.

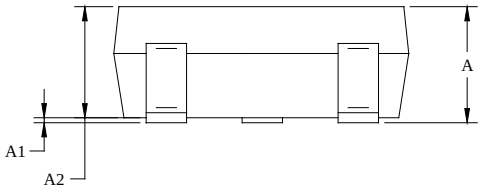
PACKAGE OUTLINE DIMENSIONS

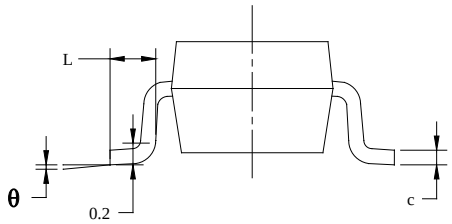
SOT-23-5L





RECOMMENDED LAND PATTERN(Unit: mm)





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950 BSC		0.037 BSC	
e1	1.90 0 BSC		0.075 BSC	
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

ORDERING INFORMATION

Part Number	Voltage Range	Features	Operating Temperature	Package Type	Top Mark	SPQ
FH2128M5	2.5V ~ 5.5V	● Boost(Step-up) ● 92% Efficiency ● VFB Voltage: 1.23V ● Vout: 2.5V~30.0V(ADJ) ● Switching Frequency: 1.2MHz ● Current Limit: 0.6A	-40℃ to 85℃	SOT-23-5L	KF YLL	3000PCS/Reel

Note:

- **FH2128** 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.

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▲Update by Nov.2019