

## 30V 2A 500KHz Synchronous Step-Down Regulator

### General Description

The FH4711 is a high frequency, synchronous, rectified, step-down, switch-mode converter with internal power MOSFETs. It offers a very compact solution to provide a 2A continuous current over a wide input supply range, with excellent load and line regulation.

The FH4711 requires a minimal number of readily available, external components and is available in a space saving SOP-8L package.

### Features

- Wide 4.5V to 30V Operating Input Range
- 2A Continuous Output Current
- 500KHz Switching Frequency
- Short Protection with Hiccup-Mode
- Built-in Over Current Limit
- Built-in Over Voltage Protection
- PFM Mode for High Efficiency in Light Load
- Internal Soft-Start
- 200mΩ/150mΩ Low  $R_{DS(ON)}$  Internal Power MOSFETs
- Output Adjustable from 0.923V
- No Schottky Diode Required
- Integrated internal compensation
- Thermal Shutdown
- Available in SOP8 Package
- -40°C to +85°C Temperature Range

### Applications

- Digital Set-top Box (STB)
- Tablet Personal Computer (Pad)
- Flat-Panel Television and Monitor
- Wi-Fi Router / AP
- Digital Video Recorder (DVR)
- Portable Media Player (PMP)
- Cable Modem / XDSL
- General Purposes

### Typical Application Circuit

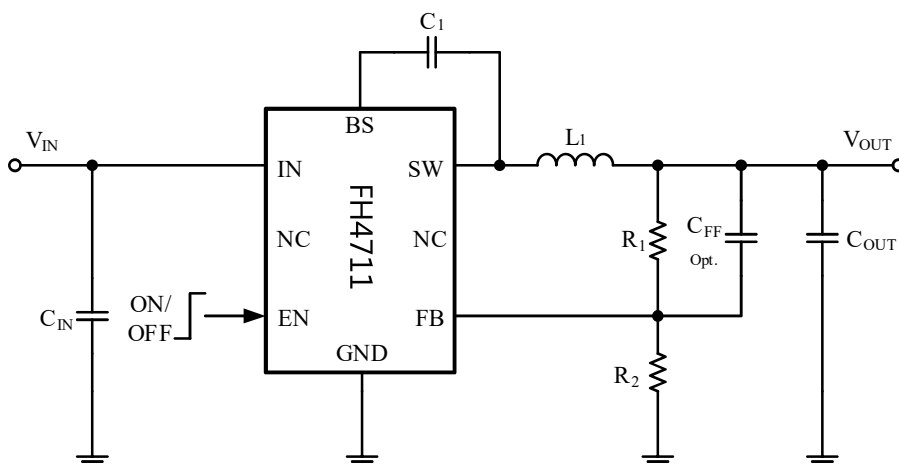
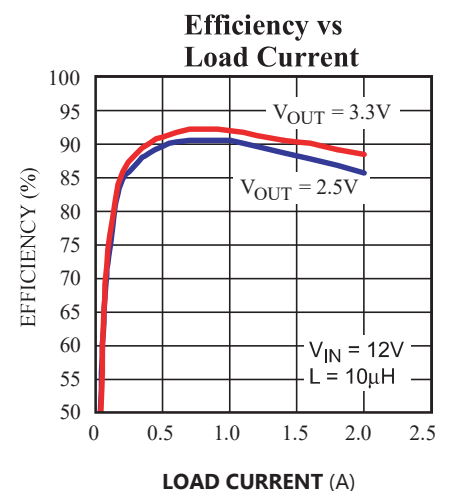
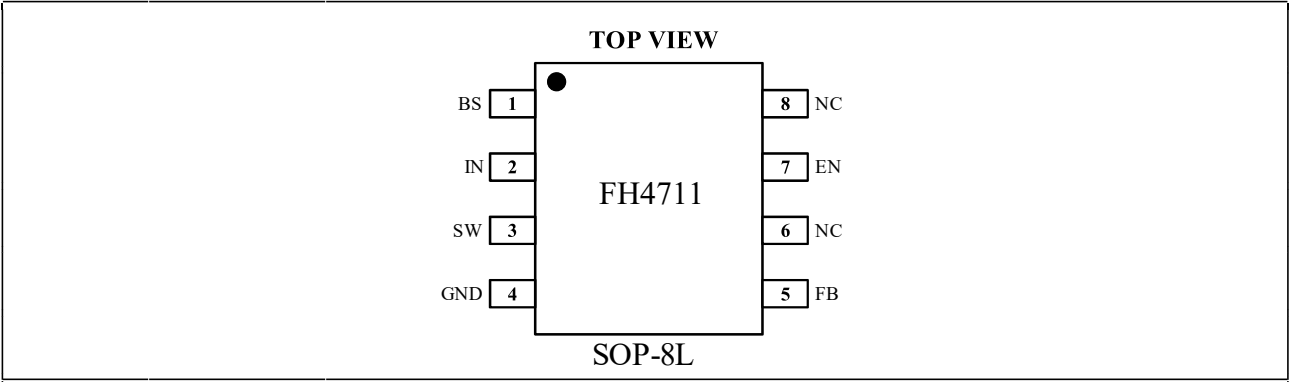


Figure 1. Basic Application Circuit



Pin Configuration



Pin Description

Pin	Name	Function
1	BST	Bootstrap. A capacitor connected between SW and BST pins is required to form a floating supply across the high-side switch driver.
2	VIN	Power Supply Pin
3	SW	Switching Pin
4	GND	GROUND Pin
5	FB	Adjustable Version Feedback input. Connect FB to the center point of the external resistor divider
6	NC	No Connection
7	EN	Drive this pin to a logic-high to enable the IC. Drive to a logic-low to disable the IC and enter micro-power shutdown mode.
8	NC	No Connection

Functional Block Diagram

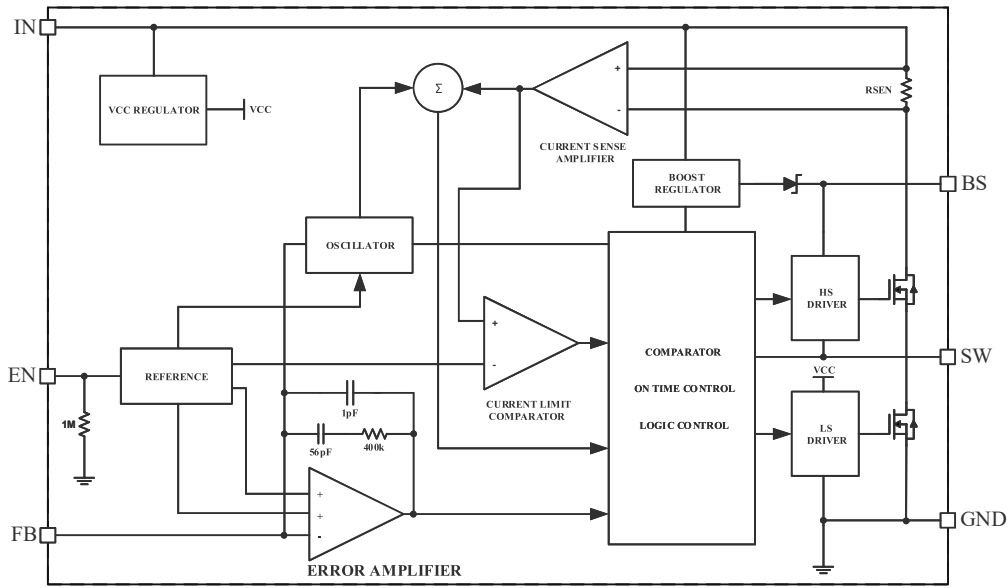
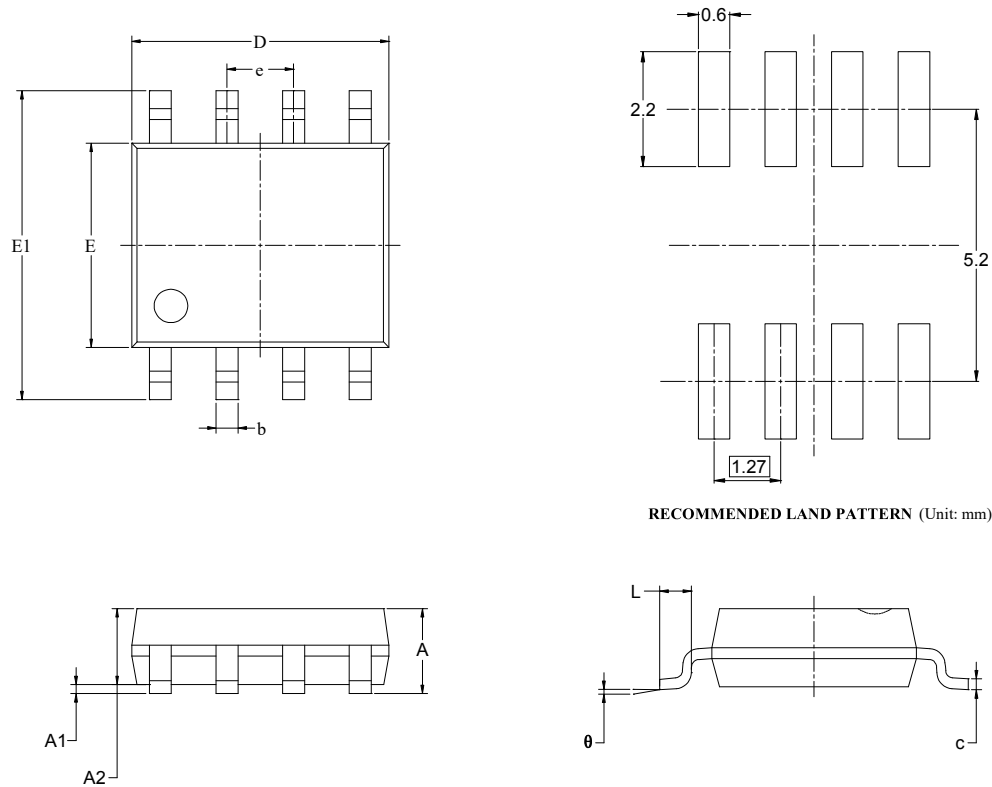


Figure 2. Block Diagram

Package Description

Type: SOP-8L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.27 BSC		0.050 BSC	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

Order Information

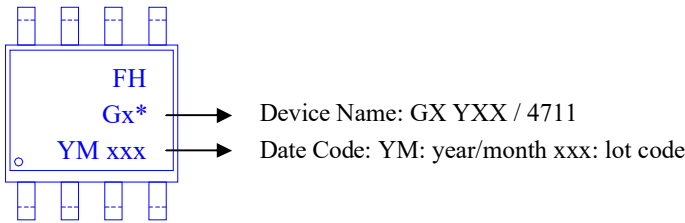
Part Number	Description	Operating Temperature Range	Package Type	Top Mark	SPQ
FH4711S8	30.0V 2.0A Buck 500KHz Vfb: 0.923	-40 ~ 85°C	SOP-8L	① G* YXX ② 4711 YM XXX	3000PCS/Reel

Note:

- FH4711 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.



Device Name: SOP-8L



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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