

600KHz / 18V / 2.0A Synchronous Buck Converter

DESCRIPTION

Datasheet Brief

The FH4631 is a fully integrated, high-efficiency 2.0A synchronous rectified step-down converter.

The FH4631 operates at high efficiency over a wide output current load range.

This device offers two operation modes, PWM control and PFM Mode switching control, which allows a high efficiency over the wider range of the load.

The FH4631 requires a minimum number of readily available standard external components and is available in a 6-pin SOT23 RoHs compliant package.

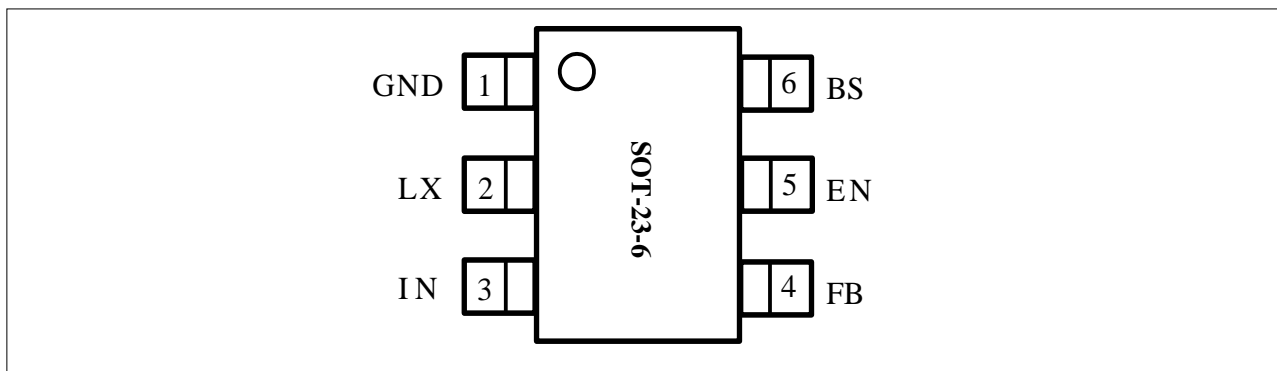
APPLICATIONS

- Distributed Power Systems
- Digital Set Top Boxes
- Flat Panel Television and Monitors
- Wireless and DSL Modems
- Notebook computer

FEATURES

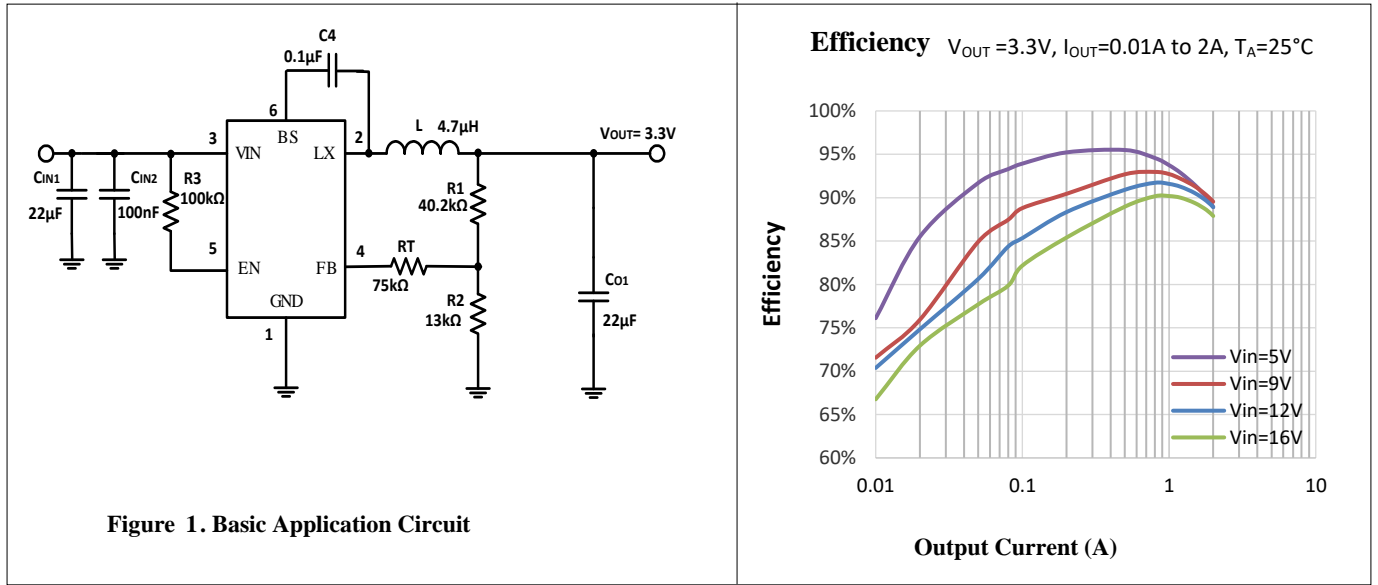
- High Efficiency: Up to 95% @ 5V
- 600kHz Frequency Operation
- 2.0A Output Current
- No Schottky Diode Required
- 3.5V to 18V Input Voltage Range
- 0.8V Reference
- Slope Compensated Current Mode Control for Excellent Line and Load Transient Response
- Integrated internal compensation Stable with Low ESR Ceramic Output Capacitors
- Over Current Protection with Hiccup-Mode
- Input overvoltage protection (OVP)
- Thermal Shutdown
- Inrush Current Limit and Soft Start
- Available in SOT23 -6 Package

PACKAGE PIN FUNCTIONS



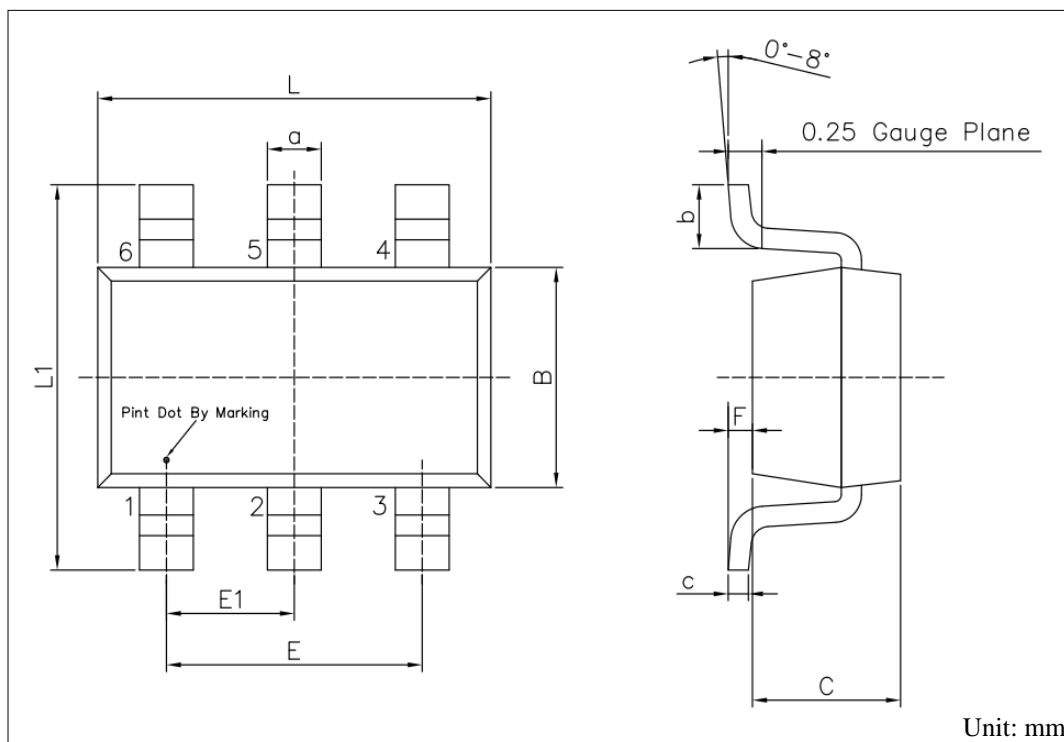
Pin	Name	Function
1	GND	Ground Pin
2	LX	Switching Pin
3	IN	Power supply Pin
4	FB	Output Voltage feedback input. Connect FB to the center point of the external resistor divider.
5	EN	Drive this pin to a logic-high to enable the IC. Drive to a logic-low to disable the IC and enter micro-power shutdown mode. Don't floating this pin.
6	BS	Bootstrap. A capacitor connected between LX and BST pins is required to form a floating supply across the high-side switch driver.

TYPICAL APPILCATION



PACKAGE INFORMATION

SOT-23-6



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.82	3.02	E1	0.85	1.05
B	1.50	1.70	a	0.35	0.50
C	0.90	1.30	c	0.10	0.20
LI	2.60	3.00	b	0.35	0.55
E	1.80	2.00	F	0	0.15

Note:

- 1) All dimensions are in millimeters.
- 2) Package length does not include mold flash, protrusion or gate burr.
- 3) Package width does not include inter lead flash or protrusion.
- 4) Lead popularity (bottom of leads after forming) shall be 0.10 millimeters max.
- 5) Pin 1 is lower left pin when reading top mark from left to right.

ORDER INFORMATION

Part Number	Package	Topmark	Quantity/ Reel
FH4631M6	SOT-23-6L	S * * * *	3000

- FH4631 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.