



Step-down Synchronous Converter (DC-DC)

1 Main features:

- ◆ The conversion efficiency can reach 96%
- ◆ Low output voltage to 0.6V
- ◆ 2A current output
- ◆ 1.5MHz fixed frequency
- ◆ 2.3V-6V input voltage
- ◆ PFM mode light load and high efficiency
- ◆ Low static current: 40uA
- ◆ Short circuit protection
- ◆ Internal failure protection
- ◆ Pulse current limit and soft start < 1uA off current
- ◆ <1uA 关断电流
- ◆ 100% duty cycle
- ◆ Package: SOT23-6

2 Typical application

- ◆ Smart phone
- ◆ Wireless and DSL modems
- ◆ PDA

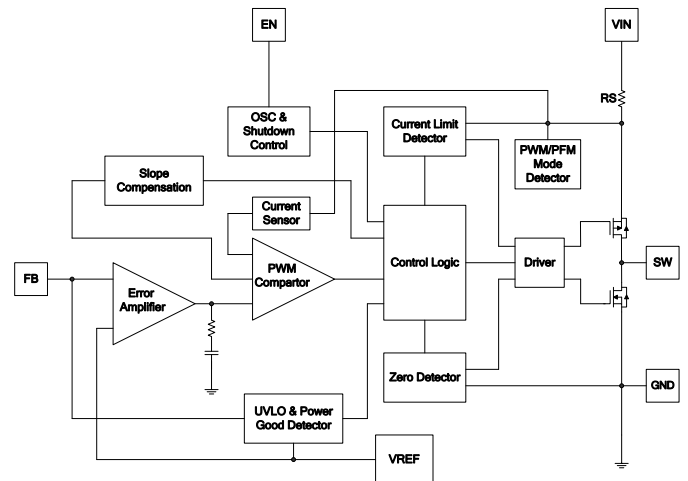
3 Product description

The HL3420B is a 1.5MHz fixed frequency synchronous step-down DC-DC converter that drives up to 2A loads in current mode, provides a wide voltage input of 2.3V to 6V,

5 Compare with similar products

	Input voltage range	Maximum output current	Static current	frequency	Encapsulation form
SY8089	2.6V~5.5V	2A	55uA	1MHz	SOT23-6
HL3420B	2.3V~6V	2A	40uA	1.5MHz	SOT23-6

provides high conversion efficiency without the need for Schottky diodes, and can adjust the output voltage to as low as 0.6V. HL3420B can also work at 100% duty cycle in the case of low pressure difference, and the HL3420B small package can save a lot of space for the PCB. The typical application of the chip is as follows: The internal structure block diagram of the chip is as follows:



4 Product highlights

- ◆ Built-in compensation circuit
- ◆ With complete overcurrent short circuit protection function
- ◆ <1uA off current