High voltage step-down Synchronous Converter (DC-DC)

1 Main features:

- The conversion efficiency can reach 96%
- Reference voltage 0.8V
- 3A current output
- 500KHz fixed frequency
- Good current control mode
- 4.5V-16V input voltage
- Integrated internal compensation
- Short circuit protection
- Internal failure protection
- Pulse current limit and soft start
- Adopt SOT23-6 package

2 Typical application

- Broadband communication system
- Distributed power system
- Flat panel TV and monitor
- Wireless and DSL modems
- Laptop

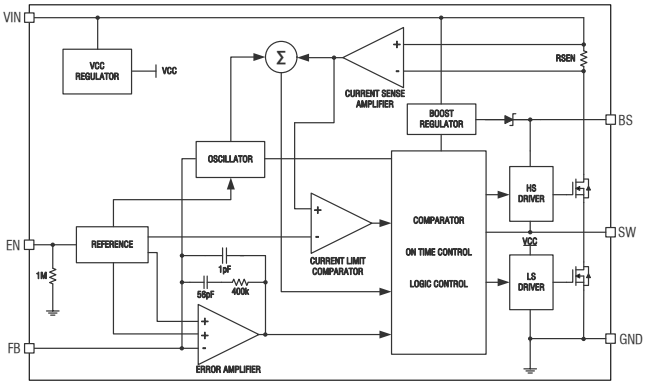
3 Product description

The HL1471 is an integrated, efficient 3A synchronous rectifier buck converter. The HL1471 has high efficiency over a wide range of load currents.

The device offers two operating modes, PWM and PFM mode switching control, which enables high efficiency over a wide load range.

The HL1471 requires minimal external components and is packaged in a 6-pin SOT23 RoHS package. Ensures good output linearity over a wide frequency range.

The internal structure block diagram of the chip is as follows:



4 Product highlights

- Output 3A current can be achieved with fewer external components.
- Built-in compensation circuit.
- With complete overcurrent short circuit protection function.
- Excellent soft start function.

5 Compared with similar foreign products

	Input voltage range	Maximum output current	Static current	Turn-off current	Soft-start capacitance	Switching tube impedance	Encapsulation form
MP1471A	4.5V～16V	3A	840uA	1uA	No	110mΩ/57mΩ	SOT23-6
HL1471	4.5V～16V	3A	600uA	1uA	No	80mΩ/60mΩ	SOT23-6