



High Voltage Boost Converter (DC-DC)

1 Main features:

- ◆ 90% efficiency
- ◆ Internal integrated power MOS
- ◆ 1.2MHz fixed frequency
- ◆ Can drive 7 strings of WLEDs
- ◆ Soft start/wide frequency dimming
- ◆ Under voltage protection, heat off
- ◆ Internal current limiting
- ◆ Overvoltage protection
- ◆ Small LC filter
- ◆ Small and 1uA turn-off current
- ◆ FB voltage 200mV

2 Typical application

- ◆ Camera white flash
- ◆ Phone backlight
- ◆ PDALED backlight
- ◆ Digital camera

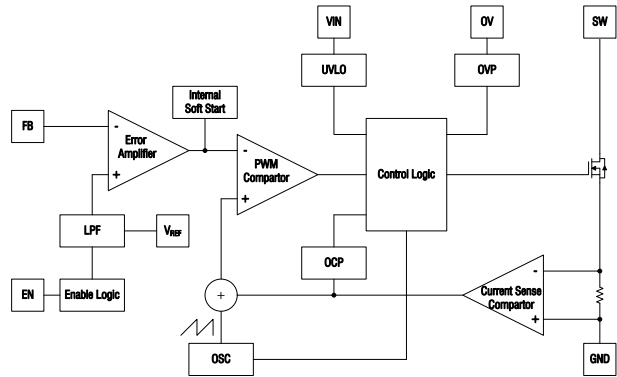
3 Product description

The HL9201 is a boost DC-DC converter that can drive 7 strings of white LED lights on a single lithium battery. The HL9201 controls LED current by detecting resistance current patterns and fixed frequencies with peripheral current. Feedback voltages as low as 200mV reduce power losses and improve efficiency.

5 Compare with similar products

	Input voltage range	Static current	Turn-off current	LED	Switching tube impedance	Encapsulation form
SY7201	2.8V~30V	100uA	10uA	7-string	200mΩ	SOT23-6
HL9201	3V~24V	200uA	0.1uA	7-string	100mΩ	SOT23-6

The HL9201 has undervoltage locking, current limiting and thermal overload protection. The internal structure block diagram of the chip is as follows:



4 Product highlights

- ◆ Can drive 7 string WLED
- ◆ Built-in compensation circuit
- ◆ Soft start/wide frequency dimming
- ◆ Overvoltage protection