



High Voltage Boost Converter (DC-DC)

1 Main feature

- ◆ 90% efficiency
- ◆ Internal integrated power MOS
- ◆ 1.2MHz fixed frequency
- ◆ Can drive 7 strings of WLED
- ◆ Soft start/wide frequency dimming
- ◆ Undervoltage protection, heat off
- ◆ Internal current limiting
- ◆ Overvoltage protection
- ◆ Small LC filter
- ◆ Small and 1uA turn-off current
- ◆ FB voltage 104mV/250mV/300mV

2 Typical application

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

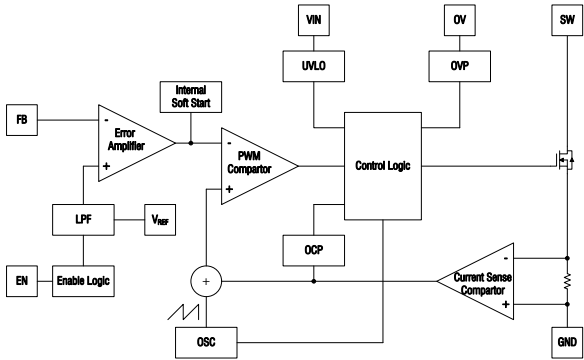
3 Product description

The HL9284 is a boost DC-DC converter that can drive 7 strings of white LED lights on a single lithium battery. The HL9284 controls LED current by detecting resistance current patterns and fixed frequencies with peripheral current. Internal soft start function reduces surge flow.

5 Compare with similar products

	Input voltage range	Static current	Turn-off current	LED	Switching tube impedance	Encapsulation form
RT9284	2.7V~5.5V	300uA	0.1uA	5-string	750mΩ	SOT23-6
HL9284	2.2V~5.5V	200uA	0.1uA	7-string	500mΩ	SOT23-6

The HL9284 has undervoltage lock, 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