



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

1 Main features:

- ◆ The conversion efficiency can reach 94%
- ◆ Reference voltage 0.925V
- ◆ 3.5A current output
- ◆ 340KHz fixed frequency
- ◆ Good current control mode
- ◆ 4.5V-21V input voltage
- ◆ Integrated internal compensation
- ◆ Short circuit protection
- ◆ Internal failure protection
- ◆ Pulse current limit and soft start
- ◆ ESOP8 package

2 Typical application

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

3 Product description

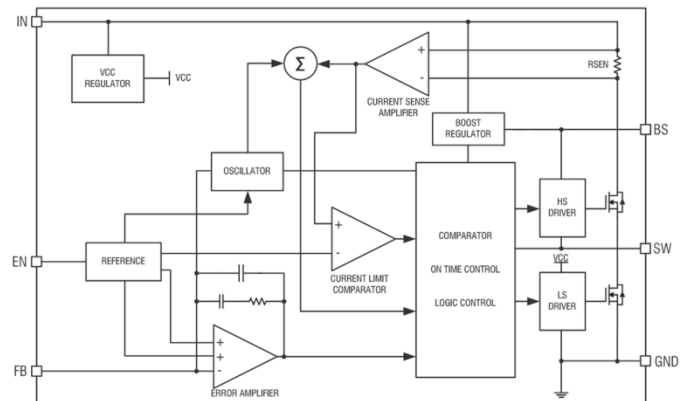
The HL2499A is an integrated, efficient 3.5A synchronous rectifier buck converter. The HL2499A has high efficiency over a wide range of load currents.

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
TPS54329	4.5V~18V	3A	840uA	4.3uA	Need	100mΩ/74mΩ	ESOP8
HL2499A	4.5V~21V	3.5A	400uA	1uA	No	75mΩ/55mΩ	ESOP8

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

The HL2499A requires minimal external components and is packaged in an 8-pin ESOP8 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

- ◆ The output current of 3.5A can be achieved with fewer external components.
- ◆ Built-in compensation circuit.
- ◆ With OVP function.
- ◆ It has complete protection function such as over voltage, over current and over temperature.
- ◆ With excellent soft start function.