



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

1 Main features:

- ◆ High efficiency: up to 96%
- ◆ 0.6MHz operating frequency
- ◆ 2A output current
- ◆ 4.5V to 16V Input voltage range
- ◆ 0.6V reference voltage
- ◆ Internal compensation function
- ◆ Enter burp mode when overcurrent protection
- ◆ Overheat protection function
- ◆ Built-in soft start function reduces inrush current

2 Typical application

- ◆ Distributed power system
- ◆ Digital set-top box
- ◆ Flat panel TV and monitor
- ◆ Wireless and DSL modems
- ◆ Laptop

3 Product description

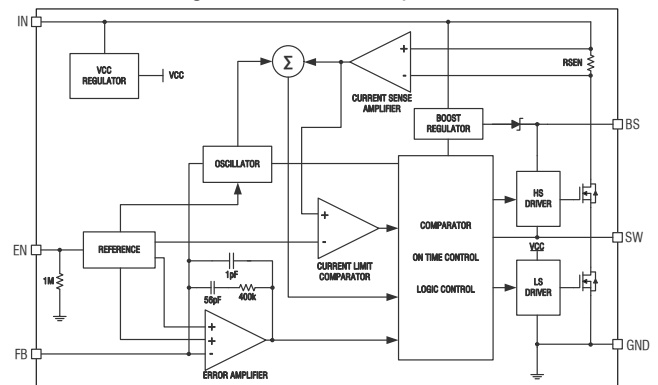
The HL2492 is a highly integrated, high efficiency synchronous buck DC-DC converter with a wide voltage input current of up to 2A from 4.5V to 16V.

5 Compare with similar products

	Input voltage range	Maximum output current	Static current	Turn-off current	Soft-start capacitance	Switching tube impedance	Encapsulation form
SY8120B (SILERGY)	4.5V~18V	2A	400uA	5uA	No	130mΩ/120mΩ	SOT23-6
HL2492	4.5V~16V	2A	300uA	3uA	No	90mΩ/70mΩ	SOT23-6

The HL2492 has two operating modes, PFM control and PWM mode conversion control, to operate at high efficiency over a wide range of output current loads.

The HL2492 peripheral circuit requires fewer components, greatly saving PCB space. The internal structure block diagram of the chip is as follows:



4 Product highlights

- ◆ Fewer external components can reach output 2A current
- ◆ 3uA turn-off current
- ◆ With complete overcurrent short circuit protection function
- ◆ Excellent soft start function