SP6638HF supports low voltage direct charge PWM chip to do 18W, constant power:

SP6638HF is a current mode PWM control chip with built-in power MOSFET, which is used for schemes with power within 18W. The chip works in frequency hopping mode when the system outputs no load, works in PFM mode when the system outputs light load to medium load, and works at the maximum constant operating frequency when the output is heavy. The startup current and working current of SP6638HF are set relatively small to reduce the power consumption during standby.

The chip has a built-in slope compensation circuit to avoid the occurrence of sub-harmonic oscillation and improve the stability of the system. The chip has a built-in leading-edge blanking time (Leading-edge blanking time) to eliminate the influence of the diode reverse recovery current in the buffer network on the circuit. The chip has a frequency jitter function, which can effectively improve the EMI performance of the system.

深圳市上大科技有限公司
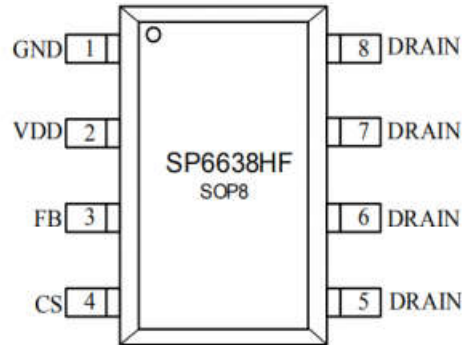sandtech electrions Co.,LTD

SP6638HF
高性能、低功耗开关电源控制芯片

DATA SHEET

SP6638HF

高性能、低功耗开关电源控制芯片

SP6638HF has a variety of built-in protections, including cycle-by-cycle current limit protection (OCP), over-voltage protection (OVP), VDD over-voltage clamp, under-voltage protection (UVLO), over-temperature protection (OTP), etc., driven by the internal totem pole The structure can better improve the EMI characteristics of the system and the soft-start control of the switch. SP6638HF uses SOP8 lead-free package. Features: 4ms soft start, meeting 75mW standby requirements, frequency jittering function, no-load frequency hopping function, noise-free operation, fixed 65KHz switching frequency, built-in synchronous slope compensation, low starting current, low working current, built-in leading edge blanking (LEB) Function, cycle-by-cycle current limit protection (OCP), over-voltage protection (OVP), under-voltage protection (UVLO), VDD voltage clamp, over-temperature protection (OTP), can achieve constant output power.

十、管脚定义图

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GND [1]          [8] DRAIN

VDD [2]          [7] DRAIN
            SP6638HF
              SOP8
FB  [3]          [6] DRAIN

CS  [4]          [5] DRAIN
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序号	名称	功能
1	GND	地
2	VDD	电源
3	FB	反馈脚
4	CS	电流采样脚
5/6/7/8	Drain	高压 MOSFET 的漏端

Overview

SP6638HF is a current mode PWM control chip with built-in power MOSFET, which is used for schemes with power within 18W. The chip output load when the system is working in a frequency hopping pattern, the light load to the system output stage working in the medium load PFM mode, the output of heavy work carrier frequency at a maximum constant work. The startup current and working current of SP6638HF are set relatively small to reduce the power consumption during standby.

The chip has a built-in slope compensation circuit to avoid the occurrence of sub-harmonic oscillation and improve the stability of the system. The chip has a built-in leading -edge blanking time (Leading-edge blanking time) to eliminate the influence of the diode reverse recovery current in the buffer network on the circuit. The chip has a frequency jitter function, which can effectively improve the EMI performance of the system.

The lowest operating frequency of the chip is set above the audio frequency, which can avoid system noise during operation.

SP6638HF has a variety of built-in protections, including cycle-by-cycle current limit protection (OCP), over-voltage protection (OVP), VDD over-voltage clamp, under-voltage protection (UVLO), over-temperature protection (OTP), etc., driven by the internal totem pole The structure can better improve the EMI characteristics of the system and the soft-start control of the switch.

SP6638HF uses SOP8 lead-free package.

2. Features

· 4ms soft start
· Meets 75mW standby requirements
· Frequency jitter function
· No-load frequency hopping function
· Noise-free operation
· Fixed 65KHz switching frequency
· Built-in synchronous slope compensation
· Low starting current, low working current
· Built-in leading edge blanking (LEB) Function
· Cycle-by-cycle current limit protection (OCP)
· Overvoltage protection (OVP), undervoltage protection (UVLO), VDD voltage clamp
· Over temperature protection (OTP)
· Constant output power can be achieved

3. Application scope

· Charging is
· PDA, digital cameras, camcorders power adapter
· STB power
· open frame switching power supply
· PC auxiliary power