

High Performance PWM Controller for Fly-back

1 Descriptions

SC3030 is a high performance, multi-mode fly-back PWM controller (CCM/QR/DCM).

SC3030 provides an adaptive switching frequency fold-back to achieve higher efficiency in the whole loading range. At heavy load or full load, it operates up to 67kHz frequency. When loading decreases, it operates in green mode with valley switching for high efficiency. And at no load, the IC will operate in Burst mode to reduce power consumption.

It provides functions of low start-up current, fast start-up, low standby power consumption. The burst mode with extremely low operation current (185uA) and significantly reduces standby power consumption to meet the efficiency regulations.

The SC3030 offers comprehensive protection to prevent the circuit from damage under abnormal conditions.

Furthermore, the features of frequency jittering and smart driving function can minimize the noise and improve EMI performance.

2 Features

- Internal Soft Start
- 67kHz Maximum Switching Frequency
 - CCM @ Heavy Load and Low Line
 - Valley switching operation @ Green mode
 - Burst Mode @ Light Load & No Load
- Ultra-low operation current @Burst mode/Fault Mode
- Frequency Jitter for EMI improvement
- Driver capability: 300mA/-600mA
- Comprehensive Protection
 - VDD over voltage protection
 - VDD under voltage lock out
 - Cycle by cycle current limiting
 - Two level over current protection
 - Output over voltage protection
 - Adaptive output short protection
 - Over Load protection
 - Brown in/out with auto-recovery
- SOT23-6 package available

3 Applications

- AC-DC adapters for Portable Devices