

PWM Buck Controller with Fixed-off Time Switching Mode

Features

- 8.5V to 19V Input Supply Voltage Range
- Fast Average Current Control
- Fixed Off-time Switching Mode
- Analog Dimming Input
- PWM Dimming Input
- Over Current Protection with Skip Mode
- MOSFET Short Detection
- Thermal Shutdown

Applications

- LCD TV LED backlight
- DC-DC or AC-DC LED Driver Applications
- General LED Lighting

Description

The SM1251 is a high efficiency buck controller for LED applications which adopts an open loop average mode current control operating in a constant off-time mode. So no external compensation is needed. The IC features $\pm 2\%$ current accuracy, tight line and load regulation of the LED current.

The SM1251 can be powered from an 8.5V to 19V supply. The IC features fast PWM dimming response. The Analog dimming input ADIM can accept a reference voltage from 0V to 3V.

The SM1251 features over current protection, MOSFET short detection and thermal shutdown.

Device Information

Part	Package	Temp. range
SM1251	8 SOP	-40°C to +85°C

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