

DESCRIPTION

The PT6935 is a step-up DC/DC converter specifically designed for driving white LEDs (13 strings of 3 LEDs each) with a constant current from a 5V system rail. The PT6935 uses current mode, fixed frequency architecture to regulate the LED current, which is measured through an external current sense resistor. Its low 104mV feedback voltage reduces power loss and improves efficiency. The PT6935 switches at 1.3MHz, allowing the use of tiny external components to save space and cost.

The PT6935 includes under-voltage lockout, input current limiting, output over-voltage protection and IC over thermal protection. Besides, the PT6935 supports PWM dimming function.

The PT6935 is available in small 6-pin TSOT23 package.

FEATURES

- 2.5V to 6V Input Voltage Range
- Low Stand-by Current <math><1\mu\text{A}</math>
- Low 104mV Feedback Voltage
- 1.3MHz (Typ.) Fixed Switching Frequency
- Soft-Start
- PWM Dimming
- UVLO, OVP, THSD
- 0.5 Ω R_{ON} Power MOSFET Integrated
- Internal 1.3A Current Limit
- TSOT23-6 Package

APPLICATIONS

- Cell Phones
- PDAs, Handheld Computers
- Digital Cameras
- Small LCD Displays

BLOCK DIAGRAM

