DESCRIPTION

MT7860 is high PF Buck LED Driver and works under Quasi-Resonant Mode (QRM) which reduces both of current and voltage stress greatly and improves EMI performance and system efficiency. The output LED current is sensed by the chip using Quasi-full-cycle sensing (QCS) technology, accurate LED current regulation is achieved.

MT7860 is specially designed for smart dimming application. Dimming of LED current can be achieved by decoded PWM or analog signal. The accuracy and consistency of LED current, especially at low dimming level, is achieved by the internal trimming decoder. As dimming level becomes lower, the switching control method goes from QRM to Pulse Frequency Modulation (PFM) seamlessly. Then smaller output current and lower switching loss are achieved.

The chip integrates various protection features to improve the system reliability, including over-voltage protection (OVP), over-current protection (OCP), short-circuit protection (SCP) and over-temperature compensation, etc.

FEATURES

- Single-stage active PF correction, (PFC>0.90)
- High precision LED current: ±3%
- Good line and load regulation: ±2%
- Operates under QRM mode
- Various protection features
- PWM Dimming/analog Dimming (100:1)
- Available in SOP8 package

APPLICATIONS

- Dimming lighting application
- Smart LED Lamps with 2.4G/BLE/ZigBee
- Other LED lighting application

TYPICAL APPLICATION CIRCUIT