

DESCRIPTION

The MT7658H is a high accuracy, high efficiency, high PF, dual-path linear constant current LED driver IC. The chip is implemented with no flicker and EMI issues. Besides, no external magnetic component is required, small size and low cost LED driving circuit is achieved.

MT7658H supports PWM dimming, the PWM signal is converted to internal reference voltage to realize smooth and no flicker dimming.

MT7658H integrates three innovative constant current paths, two are the main current paths to achieve dual-path constant output current and the left is the charging loop to provide charging current for input electrolytic capacitor, removing the output current ripple while realizing the high PF, no flicker is achieved.

Embedded with line voltage compensation, the charging current will be reduced when the input voltage exceeds the threshold, so as to ensure the input power does not change with the line voltage.

MT7658H integrates thermal regulation function to balance the output power and system temperature. The output current will be reduced while the junction temperature goes higher than the threshold, system reliability is guaranteed.

FEATURES

- Simple peripheral circuit with low BOM cost
- PF>0.7
- Supports PWM dimming, the PWM signal is internally converted to no flicker analog dimming
- 1% dimming level and 0.1% dimming resolution
- Internal high voltage startup circuit, ultra-fast start-up
- Integrates 500V high voltage MOSFET
- Set LED current through external resistor
- High LED current accuracy: $\pm 5\%$
- No EMI issues
- Inherent thermal regulation
- Input line voltage compensation
- Available in ESSOP10 package

APPLICATIONS

- Intelligent LED filament lamp
- Intelligent LED bulb
- Other intelligent LED lighting application

Typical Application Circuit

