

DESCRIPTION

MT7638 is a controller for removing the 100/120Hz LED current ripple on high PF pre-driver circuit. The adaptive technology ensures minimum power dissipation while removing LED current ripple.

MT7638 integrates 150V power MOSFET. It clamps the input voltage on VDD pin by 15V, and clamps the internal maximum current by 11.5mA. Only one resistor is connected between VDD and Vin+, when the clamping current is too high, which is caused by large input voltage (exceeding 15V). The chip can flexibly adjust LED peak current by the sense resistor between the CS pin and ground, which avoids the damage of LED and MOSFET when LED is short-circuit or hot plug.

With built-in temperature compensation, the system automatically adjusts the current ripple at high temperature to reduce MOSFET power dissipation and ensures system reliability.

FEATURES

- Removes 100/120Hz ripple current
- Internal 150V power MOSFET
- Integrated VDD clamp voltage: 15V
- Simplified peripheral circuits
- Auto-adjust current ripple at high temperature
- Over-temperature protection
- Short-circuit protection
- Available in ESOP8 package

APPLICATION

- Fluorescent, panel light
- Bulb, decorative light

TYPICAL APPLICATION CIRCUIT

