

DESCRIPTION

MT7741 is a high precision LED constant current control chip operating at critical conduction mode (CRM) with zero current switched-on and peak current switched-off. It's mainly targeted for 85Vac~265Vac universal mains and non-isolated buck LED power systems.

MT7741 integrates proprietary high voltage supply circuit, which eliminates VCC capacitor and startup resistor. The IC integrates freewheeling diode and combines a high power MOSFET. Very simple application circuit is achieved.

Critical conduction mode ensures that the MT7741 turns on the internal power MOSFET when the inductor current reaches zero, reducing the power MOSFET switching loss, and achieving high efficiency. With critical conduction mode, MT7741 outputs high accuracy LED current, and further achieves excellent line regulation and load regulation. It's insensitive to inductance and the I-shape inductor can be used.

MT7741 provides various protection features to enhance the system reliability, including over current protection (OCP), short circuit protection (SCP), and thermal adjustment, etc.

FEATURES

- No VCC capacitor and start-up resistor
- Embedded freewheeling diode
- Wide input voltage range
- High efficiency (up to 95%)
- Highly accurate constant LED current
- Cycle-by-cycle current limitation
- LED Short Circuit Protection
- Leading edge blanking technique
- Under-voltage lockout (UVLO) protection
- Thermal adjustment
- Available in SOP4 package

APPLICATIONS

- LED bulb, LED tube, LED signal and landscape lamp
- LED stage light, LED candle light, LED corn light, etc.
- General purpose constant current source

Typical Application Circuit

