DESCRIPTION

MT7727XK is a high precision LED constant current control chip operating at critical conduction mode (CRM). It's mainly targeted for 85Vac~265Vac universal mains and non-isolated buck LED power systems.

MT7727XK integrates proprietary high voltage supply circuit, which eliminates VCC capacitor and startup resistor. The IC also combines a high power MOSFET. Very simple application circuit is achieved. It supports high frequency switch operation.

Critical conduction mode ensures that the MT7727XK 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, MT7727XK 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.

MT7727XK provides various protection features to enhance the system reliability, including over current protection (OCP), short circuit protection (SCP), and thermal adjustment, etc.

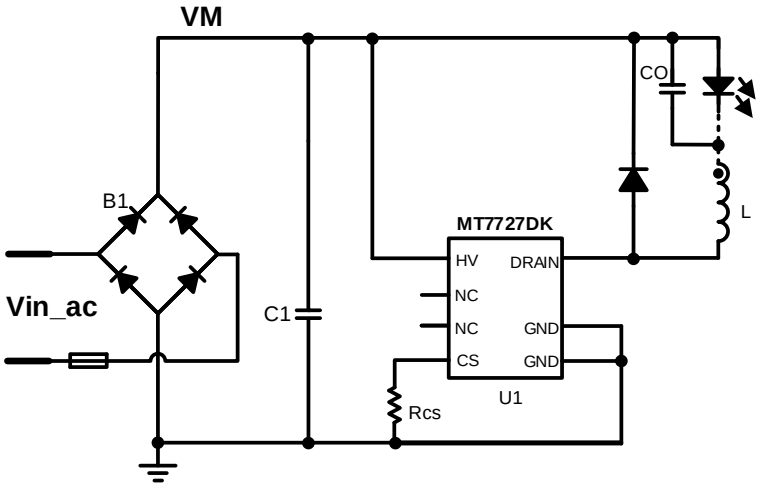
FEATURES

- No VCC capacitor and start-up resistor
- Supports high frequency switch operation, SMD inductor can be used.
- Wide input voltage range
- No flicker at low line voltage
- Highly accurate constant LED current
- Integrated high voltage power supply solution
- Cycle-by-cycle current limitation
- LED Short Circuit Protection
- Leading edge blanking technique
- Under-voltage lockout (UVLO) protection
- Thermal regulation function
- Available in SOP7 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



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