MT777XL

High Efficiency Buck Constant Current LED Driver

DESCRIPTION

MT777XL is a high precision constant current LED driver with integrated rectifier bridge and ultra-fast recovery freewheeling diode, operating in critical conduction mode (CRM). It's mainly targeted for non-isolated buck LED power systems.

MT777XL is suitable for applications with 85Vac~265Vac wide input voltage range. MT777XL supports adjustable over-voltage protection. Furthermore, OVP pin integrates enable/disable function to support color temperature switch and sensor light applications.

The high precision and fast current sensing circuit can support high frequency switch operation and get excellent line regulation. The system operates in CRM which makes the output current is insensitive to the inductance and keeps good load regulation.

MT777XL provides various protections to improve the system reliability, including short-circuit protection (SCP), adjustable over-voltage protection (OVP) and thermal adjustment, etc.

MT777XL integrates Rectifier Bridge, freewheeling diode and MOSFET. With MAXIC proprietary internal high-voltage power supply solution, no external VCC capacitor and startup resistor are needed, which achieves simplified peripheral circuits and low BOM cost.

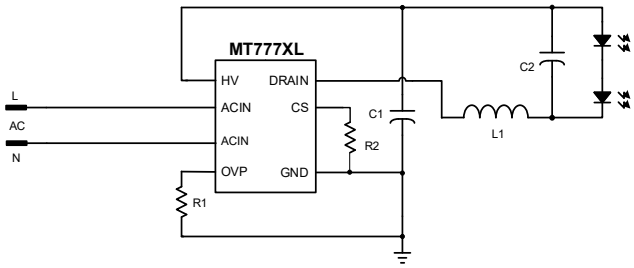
APPLICATIONS

- LED bulb, Spotlight
- LED tube
- Other LED lighting applications

FEATURES

- Integrated rectifier bridge
- Internal ultra-fast recovery freewheeling diode
- No VCC capacitor and startup resistor
- Supports high frequency switch operation, SMD inductor can be used.
- Critical Conduction Mode, insensitive to the inductance.
- Adjustable moisture-proof LED over voltage protection (OVP)
- No flicker at low line voltage
- OVP pin with enable/disable function to support color temperature switch and sensor light applications
- Highly accurate constant LED current±5%
- LED short circuit protection
- Under-voltage lockout (UVLO) protection
- Set different output OVP thresholds through OVP pin
- Thermal regulation function
- Available in ASOP7 package

TYPICAL APPLICATION CIRCUIT



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