

## DESCRIPTION

MT7782H is a high precision constant current LED driver with integrated rectifier bridge and ultra-fast recovery freewheeling diode, operating under critical conduction mode (CRM). It's mainly targeted for non-isolated buck LED power systems.

MT7782H is suitable for applications with 85Vac~265Vac input voltage range.

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

MT7782H provides various protections to improve the system reliability, including short-circuit protection (SCP), and thermal adjustment, etc.

MT7782H integrates rectifier bridge, freewheeling diode and MOSFET. With innovative 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
- Two GND pins, support  $\pi$  type filtering all SMD DOB scheme
- Internal ultra-fast recovery freewheeling diode
- No VCC capacitor and startup resistor
- Supports high frequency switch operation, SMD inductor can be used.
- Operates under CRM, insensitive to the inductance.
- No flicker at low line voltage
- Highly accurate constant LED current  $\pm 5\%$
- LED short circuit protection
- Under-voltage lockout (UVLO) protection
- Thermal regulation function
- Available in ASOP7 package

## TYPICAL APPLICATION CIRCUIT

