

## DESCRIPTION

The MT7285 is a constant current white LED driver designed for wide input voltage range from 4.2V to 40V system rail. The MT7285 can be configured as Buck, Boost and Buck-Boost topology. The MT7285 drives up to 20W with AC12V/DC12V input voltage. Current mode and fixed frequency operation provides fast transient response and eases loop stabilization. With a current sense amplifier threshold of 200mV, the LED current is programmable with one external current sense resistor and the power loss is minimized. The 450kHz operating frequency minimizes external inductor, input and output capacitor.

The MT7285 supports both PWM and analog dimming by a single control pin. Fault condition protection includes over voltage protection (OVP), cycle-by-cycle peak current limiting and thermal shutdown.

The MT7285 is available in ESOP8 packages.

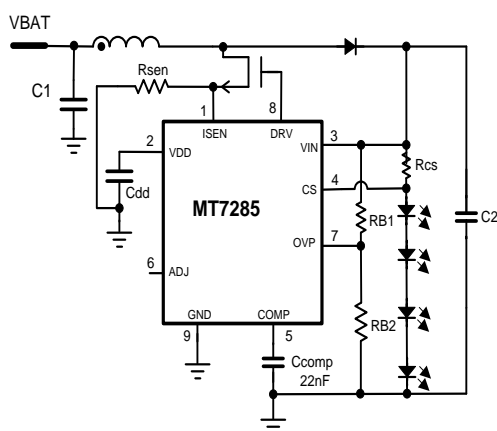
## FEATURES

- 4.2V to 40V input/output voltage range
- High efficiency up to 95%
- Cycle by Cycle Over Current Protection
- External MOSFET driver
- Support Boost ,Buck-Boost ,Buck topology
- LED temperature protection
- Stable with Low ESR Ceramic Capacitor
- OTP and OVP protection
- External setting over voltage protection
- Fixed switching frequency: 450kHz
- Proprietary frequency jittering for reduced EMI
- Low feedback voltage: 200mV
- Adjustable soft-start
- Support one pin analog dimming and up to 10kHz PWM dimming
- Available in ESOP8 package

## APPLICATION

- Automotive and Marine Lighting
- High Power LED Driver
- Torch Driver
- Low Voltage LED Lighting (Landscape, Desk, Room, MR16 lighting)
- LED backlighting

## TYPICAL APPLICATION (STEP-UP/BOOST APPLICATION)



## Efficiency VS. Input Voltage

