

**DESCRIPTION**

MT7840 is a high-PF, non-isolated LED driver. The floating-ground, high-side BUCK topology makes full wave detection possible.

The chip works under Quasi-Resonant Mode (QRM), which improves both efficiency and EMI performance. The system integrates ultra-high voltage power supply circuit, startup resistor and power supply diode are not required, simple peripheral circuit and low cost are achieved.

MT7840 is embedded with various protection features with self-recovery, such as over-voltage protection (OVP), over-current protection (OCP) and over-temperature regulation (OTR), etc., to improve reliability.

With innovative technology, the driving ability of MT7840 is independent of the supply voltage, which greatly improve the EMI performance of system.

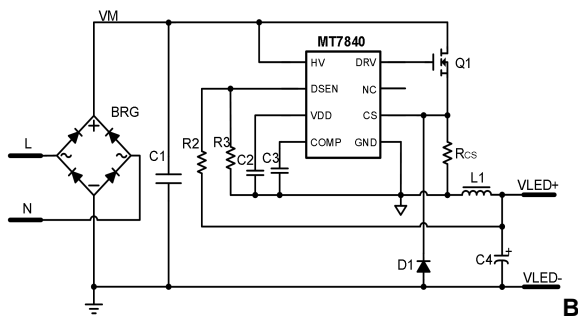
**FEATURES**

- Single-stage APFC (PFC > 0.90)
- Ultra-high voltage power supply without startup resistor and power supply diode
- High accurate LED current:  $\pm 3\%$
- Excellent line and load regulation ( $\pm 2\%$ )
- Operates under QRM
- Support Buck and Buck/Boost topology
- Various protection features
- Available in SOP8 packages

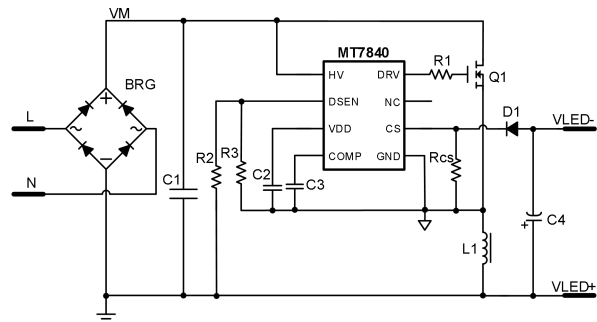
**APPLICATIONS**

- E14/E27/PAR30/PAR38/GU10 LED lamp
- T8/T10 LED tube
- Other LED lighting applications

**TYPICAL APPLICATION CIRCUIT**



**Buck Circuit**



**Buck-Boost Circuit**