

### DESCRIPTION

MT7840F is a high-PF, non-isolated LED driver with high precision output current. The floating-ground, high-side BUCK topology makes full wave detection possible.

MT7840F works in Quasi-Resonant Mode (QRM), which improves both of efficiency and EMI performance.

The system integrates ultra-high voltage power supply circuit, startup resistor and power supply diode are not needed, low external component count and low BOM cost are achieved.

MT7840F integrates various protections with self-recovery, such as over-voltage protection (OVP), over-current protection (OCP) and over-temperature compensation, etc., to improve reliability.

The system driving capability is irrelevant to the power supply voltage, which greatly improves the EMI performance.

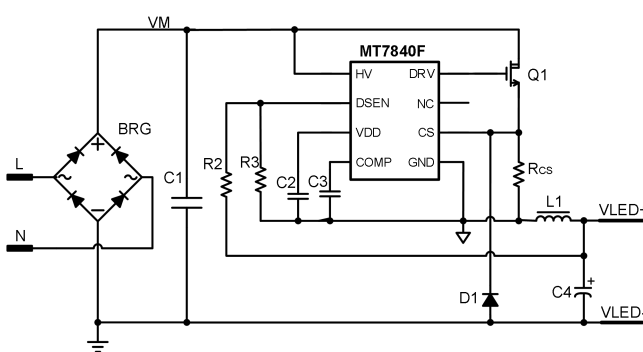
### FEATURES

- Single-stage active power factor correction (PFC > 0.90)
- Ultra-high voltage power supply without startup resistor and power supply diode
- High accuracy LED current:  $\pm 3\%$
- Good Line and Load Regulation ( $\pm 2\%$ )
- Operates in QRM
- Output current foldback at low input voltage
- Support Buck and Buck/Boost Topology
- Various protection features
- Available in SOP8 packages

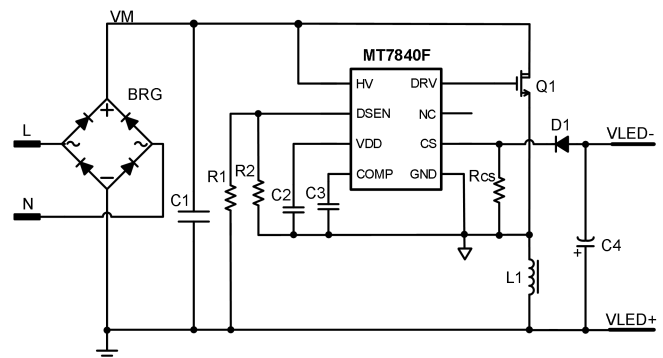
### APPLICATIONS

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

### TYPICAL APPLICATION CIRCUIT



**Buck Circuit**



**Buck-Boost Circuit**