

**DESCRIPTION**

The MT7854BS is a high-PF, non-isolate LED Driver IC. The floating-ground, high-side BUCK topology makes full wave detection possible. High precision output current is achieved. MT7854BS works in Quasi-Resonant Mode (QRM), which improves both of efficiency and EMI performance.

The system integrates the ultra-high voltage power supply circuit, the start-up resistor and power supply diode are not needed. MT7854BS also integrates compensation circuit, which eliminates COMP pin and COMP capacitor. MT7854BS can meet low THD requirements through internal THD compensation circuit.

Various protections such as over voltage protection (OVP), over current protection (OCP) and over temperature compensation, etc. are embedded to improve reliability. The MT7854BS integrates 600V MOSFET, which further simplifies external circuit.

**FEATURES**

- Single-stage active power factor correction (PFC > 0.90)
- Ultra-high voltage power supply without start-up resistor and power supply diode
- Built-in compensation circuit, no COMP capacitor is needed
- Integrate THD compensation circuit, THD<15%
- High subharmonic-Distortion-Suppression
- High accurate LED current ( $\pm 3\%$ )
- Good Line and Load Regulation ( $\pm 2\%$ )
- Quasi-Resonant mode (QRM) operation
- Various protection schemes
- Available in SOP7 packages

**APPLICATIONS**

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

**Typical Application Circuit**

