

DESCRIPTION

MT7990 is a high precision primary-side constant voltage controller while achieving power factor correction. Both of regulations of constant - voltage (CV) and current - limiting (CL) are integrated into the MT7990.

MT7990 outputs constant voltage while the LED current is within the range of current limiting, it will limit the output current while the output voltage decreases as the load increases.

MT7990 can adjust the working mode automatically to save efficiency and enlarge output loading range. It works under Quasi-Resonant Mode (QRM) at heavy loading, under Discontinuous Conduction Mode (DCM) at medium loading and under Pulse Frequency Mode (PFM) at light loading. So that it can be achieved to save efficiency and enlarge output loading range. Various protection schemes are integrated to improve robustness, including over temperature protection (OTP), over voltage protection (OVP), and short circuit protection (SCP), etc.

FEATURES

- Start-up without internal/external HV MOS
- Wide output loading range
- QRM at heavy loading to reduce EMI
- Accurate output voltage sensing and cable drop compensation
- Fast response for CV regulation
- Low output ripple for CV regulation
- Various protection schemes
- Power-on soft-start
- Available in SOP8 package

APPLICATIONS

- Intelligent LED lighting
- Battery chargers for cellular phones, pads, power tools, etc.
- High PF, low ripple LED driver

Typical Application Circuit

