

**DESCRIPTION**

MT79398 is a single-stage, primary side control AC-DC LED driver with active power factor correction. MT79398 integrates on-chip PFC circuit operates in critical conduction mode (CRM) to achieve high power factor and reduce the power MOSFET switching loss. With MAXIC proprietary control technique, precision LED current is achieved without secondary side sense and feedback circuit including opto-coupler. Embedded with 700V power MOSFET, the peripheral circuit is simplified. MT79398 provides various protections, such as input over/under voltage protection, over current protection (OCP), output over voltage protection (OVP), short circuit protection (SCP) and over temperature regulation (OTR), etc., to improve system reliability. Moreover, MT79398 is designed with thermal regulation setting pin TADJ, which allows flexible setting of the thermal regulation threshold by connecting an external resistor to ground.

**APPLICATIONS**

- AC/DC LED driver applications
- Signal, decorative LED lighting and street light
- E27/PAR30/PAR38/GU10 etc.LED lamp
- LED fluorescent lamp

**FEATURES**

- Single-stage Active PFC for high power factor
- Internal integrator (no external COMP capacitor)
- Internal THD compensation circuit
- Internal line regulation
- Primary side control saving opto-coupler
- Demagnetization sensing at internal DRV driving signal
- High precision LED current ( $\pm 2\%$ )
- Critical Conduction Mode operation
- Cycle-by-cycle current limiting
- Embedded with 700V power MOSFET
- Various protections with self-recovery
  - Input over/under voltage protection
  - Over current protection
  - Output over-voltage/open-circuit protection
  - Short circuit protection
- Flexibly set thermal regulation threshold through TADJ
- Power on soft-start
- Available in DIP8 packages

**Typical Application Circuit**

