

High Voltage MuxCapacitor® Voltage Reducer Plus Programmable LED Regulator IC

The Helix Semiconductors high voltage MuxCapacitor voltage reducer plus Programmable LED Regulator IC offers the highest energy efficiency for stepping down non-isolated DC voltage. Integrated with the two MuxCapacitor stages is a programmable LED regulator. The LED output can be programmed to various output currents, sourcing up to 50mA.

This IC eliminates the use of inductors or large case size capacitors for optimum volumetric efficiency.

The IC includes reset, internal references and regulation & gain control logic. The high efficiency reduces thermal loading enabling lower packaging costs.

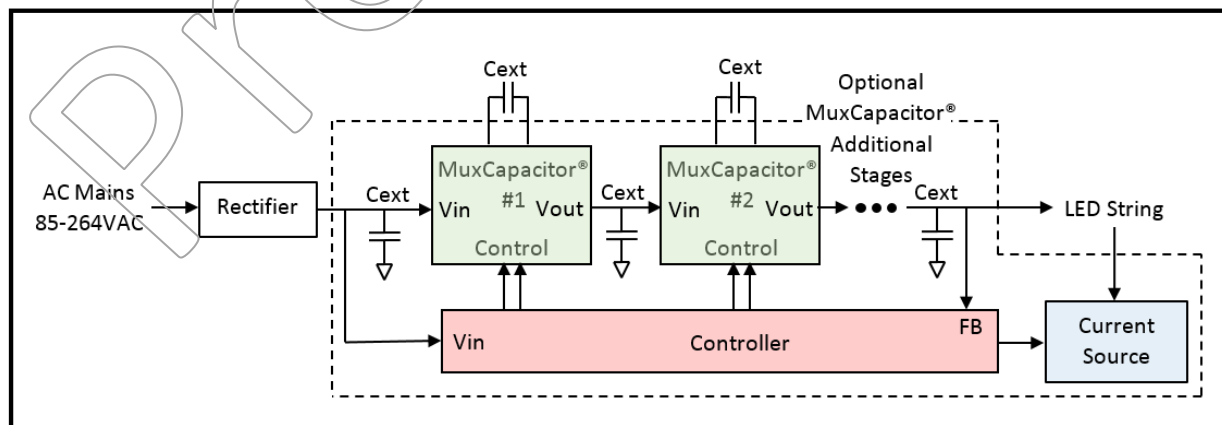
Features

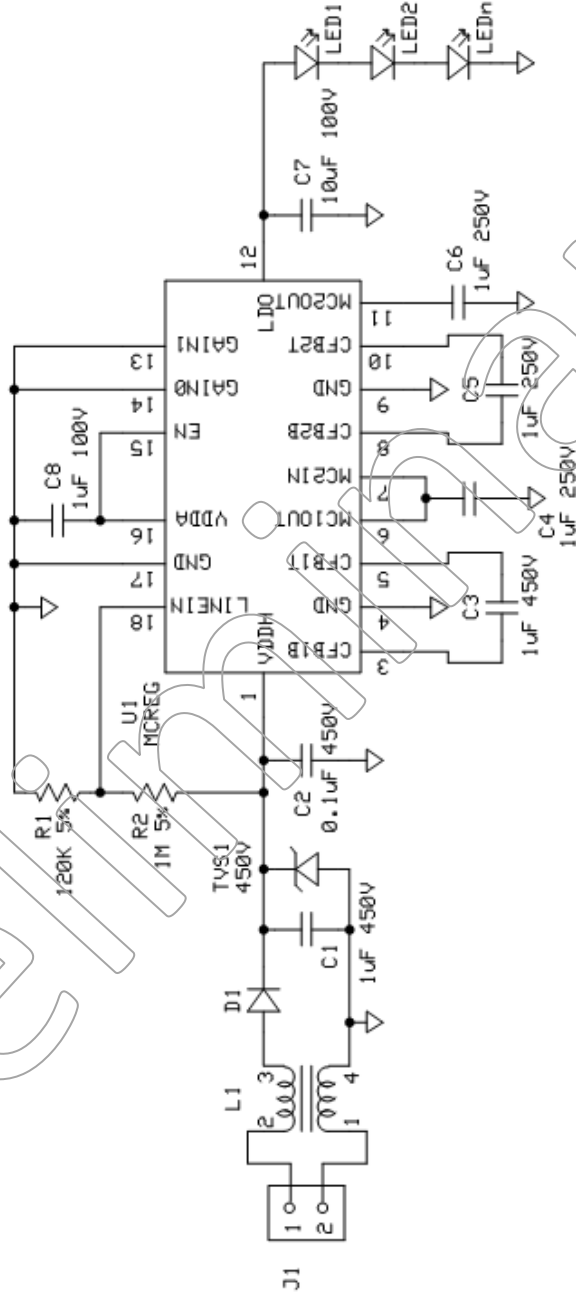
- Up to 400VDC Input Voltage
- Programmable LED Output Power Levels
- $\pm 5\%$ Power Regulation
- 50mA Output Current
- $> 90\%$ Efficiency at 5mA to 50mA
- 10mW No-Load Power Consumption
- Soft-Start
- No Inductors or large Capacitors

Applications

- LED Lighting
- Smart Lighting Fixtures
- Smart Outlets

Block Diagram





Application Schematic