

## Triac Dimmable APFC BuckBoost LED Power Switch

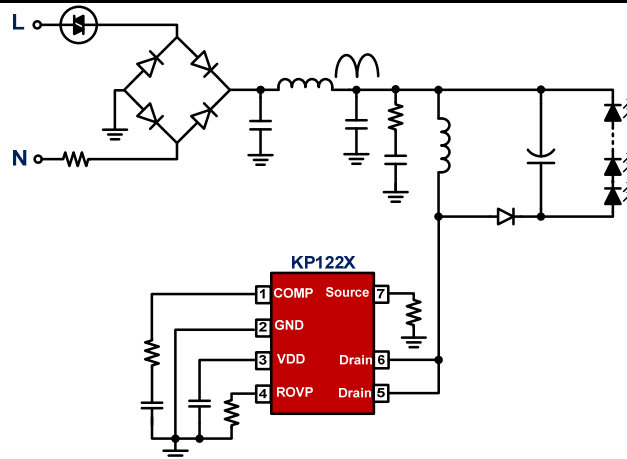
### FEATURES

- Low Cost Triac Dimmable Solution
- Single Winding Inductor Design
- Active Power Factor Correction
- High PF Value >0.9
- High Output Current Accuracy  $<\pm 3\%$
- Fast Startup Time <200ms
- Built-in HV MOSFET and Startup Circuit
- Proprietary OVP Control
- QR Operation Mode for High Efficiency
- Ultra-low Operation Current
- Good Line and Load Regulation
- Built-in Protections:
  - Cycle by Cycle Current Limit (OCP)
  - LED Open and Short Protection
  - Leading Edge Blanking(LEB)
  - Thermal Fold-back (OTP)
- Package Available with SOP-7

### APPLICATIONS

- Triac Dimmable LED Driver

### TYPICAL APPLICATION CIRCUIT



### GENERAL DESCRIPTION

KP122X is a family of highly integrated Constant Current LED power switch, which utilizes Quasi-Resonant Primary Side Regulation (PSR) topology with active PFC control for high PF and high efficiency.

KP122X integrates demagnetization detection circuit, with the combination of integrated high voltage startup and IC power supply circuit, which eliminates the transformer auxiliary winding and power supply. The IC adopts accurate current sensing and close loop constant current control to achieve high precision CC control with excellent line and load regulation. Additionally KP122X utilized a particular dimmable control scheme to maintain good triac dimming performance.

KP122X integrates functions and protections of Under Voltage Lockout (UVLO), Cycle-by-cycle Current Limiting (OCP), Thermal Fold-back (OTP), Output Over Voltage Protection (OVP), LED Open/Short Protection, etc.