

## High Integration and High Efficiency Buck LED Power Switch

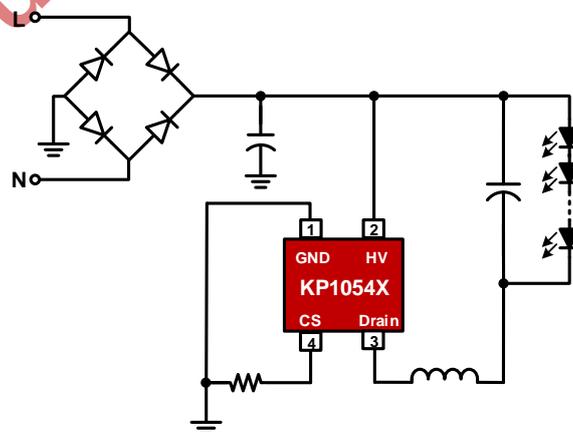
### FEATURES

- Integrated with 500V MOSFET
- Integrated with 600V FRD
- Integrated HV LDO
- No VDD Cap and Single Winding Inductor Design
- Quasi-Resonant for High Efficiency
- $\pm 4\%$  CC Regulation
- Very Low HVDD Operation Current
- Built-in AC Line CC Compensation
- Build in Protections:
  - LED Short Protection
  - On-Chip Thermal Fold-back (OTP)
  - Cycle-by-Cycle Current Limiting
  - Leading Edge Blanking (LEB)
  - HVDD UVLO
- Available with SOP-4 Package

### APPLICATIONS

- LED Lighting

### TYPICAL APPLICATION CIRCUIT



### GENERAL DESCRIPTION

KP1054XVP is a highly integrated power switch with Quasi-Resonant Buck (QR-Buck) constant current (CC) control for LED lighting applications.

KP1054XVP combines a 500V power MOSFET, 600V FRD and a power controller in one chip. The IC also integrates high voltage LDO supply circuit without VDD Cap and a novel transformer demagnetization circuit, which eliminates transformer auxiliary winding. The IC adopts Quasi-Resonant control for high efficiency.

KP1054XVP integrates functions and protections of Current Limit and Leading Edge Blanking, Under Voltage Lockout (UVLO), Cycle-by-cycle Current Limiting (OCP), Thermal Foldback (OTP), LED Short Protection, etc.