

PSR Flyback APFC Offline LED Controller

FEATURES

- Low Cost Single Stage APFC Solution
- Support No Auxiliary Windings Design
- PF>0.95 and THD<10% with Universal Input
- Fast Startup < 500ms
- $\pm 3\%$ CC Regulation
- Built-in HV Startup and Power Supply Circuit
- Proprietary Programmable OVP
- Quasi-Resonant for High Efficiency
- Very Low VDD Operation Current
- Excellent Line and Load Regulation
- Built-in Protections:
 - Output Over Voltage Protection (OVP)
 - Cycle-by-Cycle Current Limiting (OCP)
 - Leading Edge Blanking (LEB)
 - LED Open/Short Protection
 - On-Chip Thermal Foldback (OTP)
- Available in SOP-8 Package

APPLICATIONS

- LED Panel Light, Down Light, Street Light

GENERAL DESCRIPTION

KP118 is a highly integrated LED Controller with primary side regulation (PSR) constant current (CC) control for LED lighting applications. The IC utilizes Quasi-Resonant (QR) Flyback topology with active PFC control for high PF, low THD, and high efficiency.

KP118 integrates with demagnetization signal detection technology, high voltage startup and IC power supply circuit, which eliminates auxiliary windings for demagnetization detection and power supply, simplifies system design and lower cost. The IC also integrates high precision inductance current sampling technology and high precision current comparator for reference threshold voltage, Line voltage compensation is integrated with for good constant current output characteristics..

KP118 integrates functions and protections of Under Voltage Lockout (UVLO), Cycle-by-cycle Current Limiting (OCP), Thermal Foldback (OTP), Output Over Voltage Protection (OVP), LED Open/Short Protection, etc.

TYPICAL APPLICATION CIRCUIT

