

High-Performance, Low-Cost Primary Side Regulation CV/CC Power Switch

FEATURES

- Built-in 800V High Voltage Power BJT
- Multi-Mode PSR Control
- Fast Dynamic Response
- Built-in Dynamic Base Drive
- Audio Noise Free Operation
- $\pm 4\%$ CC and CV Regulation
- Low Standby Power <70mW
- Programmable Cable Drop Compensation (CDC) in CV Mode
- Built-in AC Line & Load CC Compensation
- Build in Protections:
 - Short Load Protection (SLP)
 - Cycle-by-Cycle Current Limiting (OCP)
 - Leading Edge Blanking (LEB)
 - On-Chip Thermal Shutdown (OTP)
 - VDD OVP & UVP & Clamp
- Available in SOP-7 Package

APPLICATIONS

- Battery Chargers for Cellular Phones
- AC/DC Power Adapter and LED Lightings

GENERAL DESCRIPTION

KP213XN is a high performance Primary Side Regulation (PSR) PWM power switch with high precision CV/CC control ideal for charger applications.

In CV mode, KP213XN adopts Multi Mode QR Control which uses the hybrid of AM (Amplitude Modulation) mode and (Frequency Modulation) FM mode to improve system efficiency and reliability. In CC mode, the IC uses PFM control with line and load CC compensation. The IC can achieve fast dynamic response. The built-in Cable Drop Compensation (CDC) function can provide excellent CV performance.

KP213XN integrates functions and protections of Under Voltage Lockout (UVLO), VDD over Voltage Protection (VDD OVP), Cycle-by-cycle Current Limiting (OCP), Short Load Protection (SLP), On-Chip Thermal Shutdown, VDD Clamping, etc.

TYPICAL APPLICATION CIRCUIT

