High Efficiency Quasi-Resonant Mode PSR CV/CC Power Switch

FEATURES

- **Integrated with 650V MOSFET**
- **High Efficiency Quasi-Resonant Mode**
- **Multi-Mode Primary Side Regulation**
- **Audio Noise Free Operation**
- **Optimized Dynamic Response**
- **Low Standby Power <70mW**
- **±5% CC and CV Regulation**
- **Programmable Cable Drop Compensation (CDC) in PSR CV Mode**
- **Built-in AC Line & Load CC Compensation**
- **Build in Protections:**
  - **Short Load Protection (SLP)**
  - **FB Short Protection**
  - **On-Chip Thermal Shutdown (OTP)**
  - **Cycle-by-Cycle Current Limiting**
  - **Leading Edge Blanking (LEB)**
  - **Pin Floating Protection**
  - **VDD UVLO, OVP & Clamp**
- **Available with SOP-7 Package**

APPLICATIONS

- **Battery Chargers for Cellular Phones**
- **AC/DC Power Adapter**

GENERAL DESCRIPTION

KP2143SG is a family of high efficiency Quasi-Resonant (QR) mode Primary Side Regulation (PSR) power switch with high precision CV/CC control ideal for charger applications.

In CV mode, KP2143SG adopts Multi Mode 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 audio noise free operation and optimized dynamic response. The built-in Cable Drop Compensation (CDC) function can provide excellent CV performance.

KP2143SG 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), FB Short Protection and VDD Clamping.

TYPICAL APPLICATION CIRCUIT