KP201

High Performance Current Mode PWM Controller

FEATURES

- **Low Standby Power <80mW@230V**
- **Low Start-up Current <5uA for Fast Startup**
- **Proprietary "Smooth Frequency Fold-back" and Burst Mode Operation for Green Mode Operation**
- **Audio Noise Free Operation**
- **Proprietary "Hybrid Frequency Jittering"**
- **Programmable Switching Frequency**
- **Proprietary "Constant Power Limiting"**
- **Built-in Protections:**
  - **CS Pin Floating Protection**
  - **Over Voltage Protection (OVP) on VDD**
  - **Over Load Protection (OLP)**
  - **Cycle-by-cycle Current Limiting**
  - **Leading Edge Blanking**
  - **Soft Start Function**
  - **Slope Compensation**
- **RoHS Compliant and Halogen Free**
- **Available with SOT23-6 and DIP8 Package**

APPLICATIONS

- **AC/DC Adaptors**
- **Set-Top Box Power Supplies**
- **ATX Standby Power**
- **Battery Charger**
- **Open-frame SMPS**

GENERAL DESCRIPTION

KP201 is a high performance, low cost, highly integrated current mode PWM controller for offline adapter applications.

The KP201 is integrated with Kiwi's Proprietary "Hybrid Frequency Jittering" for the oscillator to reduce conduction EMI emission of the power supply. When the output power demands decrease, the IC enters into Kiwi's Proprietary "Smooth Frequency Fold-back" for high power conversion efficiency without audio noise generated. When the current set-point falls below a given value; the IC automatically enters into burst mode and provides excellent efficiency without audio noise.

The KP201 has built-in synchronized slope compensation to prevent sub-harmonic oscillation at high PWM duty output, a Proprietary "Constant Power Limiting" block to achieve constant output power limit over universal AC input range, and the soft start function to soften the stress on the MOSFET during power on period.

KP201 integrates functions and protections of VDD UVLO, VDD OVP, Cycle-by-cycle Current Limiting (OCP), Over Load Protection (OLP), all Pins Floating Protection, RT Pin Short-to-GND Protection and Leading Edge Blanking (LEB).

TYPICAL APPLICATION