

Offline Current Mode PWM Controller with Built-in CC Regulation

FEATURES

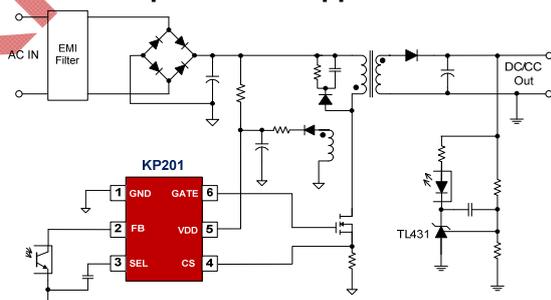
- Primary Side Constant-Current (CC) Control for DCM and CCM Operation
- $\pm 5\%$ CC Regulation; $\pm 1\%$ CV Regulation
- Less than 75mW Standby Power
- Fixed 65KHz Switching Frequency
- Green Mode and Burst Mode Control
- Very Low Startup and Operation Current
- Built-in Frequency Shuffling to Reduce EMI
- Built-in Current Mode Control with Internal Slope Compensation
- Built-in Line & Inductance Compensation for CC Operation
- Built-in Protections with Auto Recovery:
 - VDD Under Voltage Lockout (UVLO)
 - VDD Over Voltage Protection (OVP)
 - On-Chip Thermal Shutdown (OTP)
 - Cycle-by-Cycle Current Limiting
 - Over Load Protection (OLP)
 - Short Circuit Protection (SCP)
 - Leading Edge Blanking (LEB)
 - CS Pin Float Protection
- Available with SOT23-6L Package

APPLICATIONS

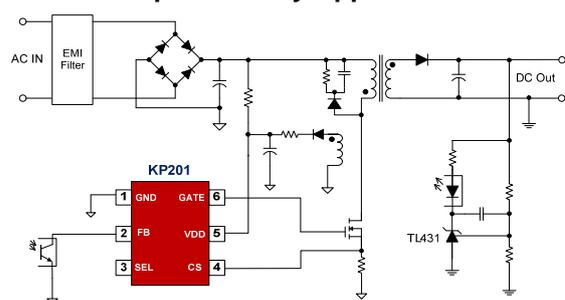
- Chargers and Adapter
- Motor Driver Power Supply

TYPICAL APPLICATION CIRCUIT

Output CC&CV Application



Output CV Only Application



GENERAL DESCRIPTION

KP201 is a high performance current mode PWM controller for offline flyback converter applications. The IC has built-in General Primary Side CC control, which simplifies isolated power supply design that requires CC regulation of the output.

In KP201, PWM switching frequency with shuffling is fixed to 65 KHz and is trimmed to tight range. The IC has built-in green and burst mode control for light and no load condition, which can achieve less than 75mW standby power for sub 30W applications.

KP201 integrates functions and protections of Under Voltage Lockout (UVLO), VDD over Voltage Protection (VDD OVP), Cycle-by-cycle Current Limiting (OCP), Short Circuit Protection (SCP), Over Load Protection (OLP), On-Chip Thermal Shutdown (OTP), Soft Start, VDD clamping and CS Pin Float Protection, etc.