

**PRIMARY SIDE CONTROL IC FOR OFF-LINE BATTERY CHARGERS****AP3706****Description**

The AP3706 is a high performance AC/DC power supply controller for battery charger and adapter applications. The device uses Pulse Frequency Modulation (PFM) method to build discontinuous conduction mode (DCM) flyback power supplies.

The AP3706 provides constant voltage, constant current (CV/CC) regulation without requiring an opto-coupler and secondary control circuitry. It also eliminates the need of loop compensation circuitry while maintaining stability.

The AP3706 achieves excellent regulation and high power efficiency, the no-load power consumption is less than 200mW at 265VAC input.

Features

- Primary Side Control for Rectangular Constant Current and Constant Voltage Output
- Eliminates Opto-Coupler and Secondary CV/CC Control Circuitry
- Eliminates Control Loop Compensation Circuitry
- Flyback Topology in DCM Operation
- Random Frequency Modulation to Reduce System EMI
- Valley Turn on of External Power NPN Transistor
- Built-in Soft Start
- Open Circuit Protection
- Over Voltage Protection
- Short Circuit Protection

Parametric Table

Startup Current (μ A)(Typ)	70
UVLO Threshold on/off (V) (Typ)	18.5/7.3
Operating Current (μ A) (Typ)	680
Standby Power (mW)	<200
Package	SOIC-8 DIP-8

Applications

- Adapters/Chargers for Cell/Cordless Phones, PDAs, MP3 and Other Portable Apparatus
- Standby and Auxiliary Power Supplies

Benefits

- High Power Efficiency for Battery Chargers
- Low Total Cost

Additional Available Materials

- Samples
- Data Sheet
- ESD Report
- Demo Board
- Application Note

