High Efficiency Off-Line PSR CC/CV Control

FEATURES

- Constant-Current (CC) and Constant-Voltage (CV) with Primary Side Control
- Proprietary technology enabling high efficiency and fast dynamic response
- Satisfy DoE VI & CoC Tier2 requirements
- No audible noise over entire operating range
- Optimization for capacitive loading
- Built-in power MOS
- Built-in Cable Compensation
- Built-in Line Compensation
- Primary-side feedback eliminates opto-coupler and TL431
- Cycle-by-Cycle Current Limiting
- Over Temperature Protection
- VCC Over Voltage Protection
- CV Open-loop Protection
- Excellent capacitive loading start-up performance
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- FT8370 Awaking Signal Detection

TYPICAL APPLICATION

- Adapter/Charger for Cell/Cordless Phones, PDAs, MP3 and Other Portable Apparatus
- Standby and Auxiliary Power Supplies Set Top Boxes (STB)
- Adapter for ADSL / WiFi Wireless

DESCRIPTION

The FT8393Mxx is a Flyback controller targeting at high-performance Constant Current/Constant Voltage applications. The FT8393Mxx facilitates CC/CV charger design by eliminating an opto-coupler and TL431. FT8393Mxx operates in quasi-resonant mode and adaptive PFM control for highest average efficiency for AC/DC power applications.

Power supplies built with FT8393Mxx can achieve both highest average efficiency, fast dynamic load response and super low standby power. FT8393Mxx satisfy DoE VI and CoC Tier2 requirements with production margin for 5V/2.4A(SOP7),5V3.4A(DIP7)and 5V/4A(SOT23-5) applications, respectively.

Furthermore, FT8393Mxx features fruitful protections like Open Circuit Protection and Over Temperature Protection to eliminate the external protection circuits and provide reliable operations.

When FT8393Mxx is used with FT8370x, good under-shoot performance and higher conversion efficiency can be achieved

TYPICAL APPLICATION CIRCUIT

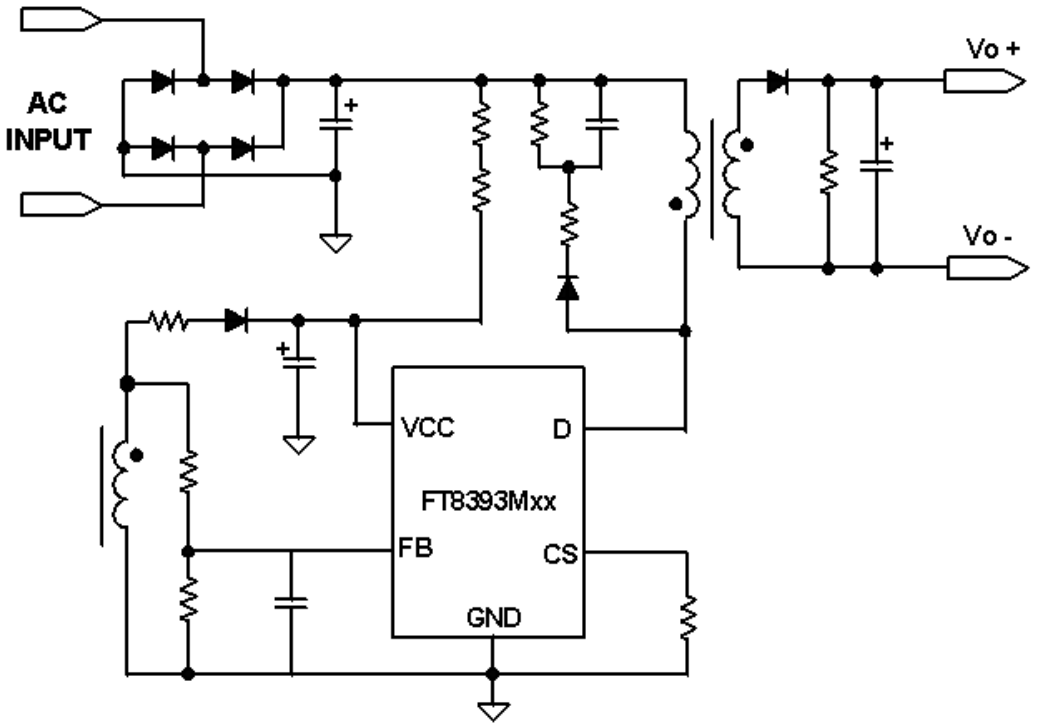

Figure 1: FT8393Mxx Typical Application Circuit(Internal MOS)

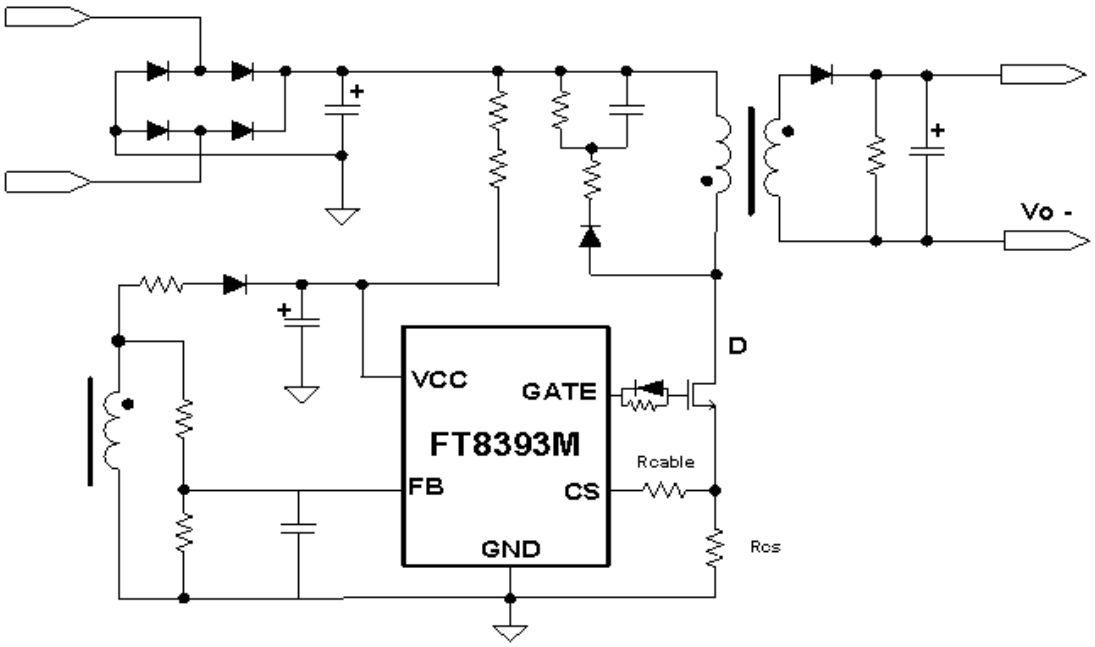

Figure 2: FT8393M Typical Application Circuit(External MOS)

PIN CONFIGURATION

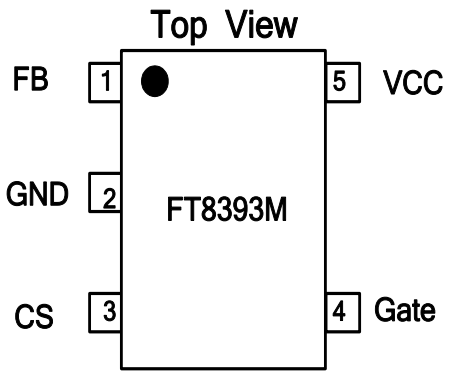

Figure 3: FT8393M

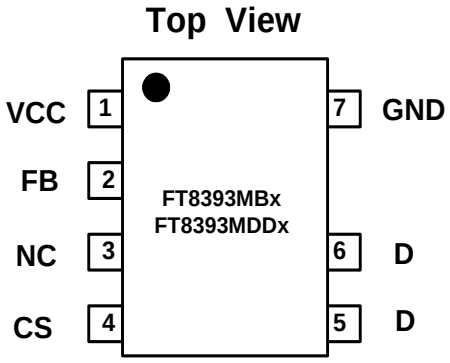

Figure 4:FT8393MBx/FT8393MDDx

TERMINAL DEFINITION

FT8393M(SOT23-5,External MOS)

Pin	Name	Description
1	FB	Output voltage feedback pin
2	GND	Ground
3	CS	Primary current sense
4	GATE	MOS gate driver
5	VCC	Supply voltage

FT8393MBx/FT8393MDDx(SOP7/DIP7,Internal MOS)

Pin	Name	Description
1	VCC	Supply voltage
2	FB	Output voltage feedback pin
3	NC	No connection
4	CS	Primary current sense
5	D	D: the Drain of the power MOS for FT8393Mxx. This pin is connected to the primary lead of the transformer
6		
7	GND	Ground

Table 1