

High Efficiency Off-Line CC/CV Switch

FEATURES

- Constant-Current (CC) and Constant-Voltage (CV) with Primary Side Control
- Proprietary technology enabling high efficiency and fast dynamic response
- Satisfy DoE Level 6 /CoC tier2 efficiency requirements
- No audible noise over entire operating range
- Optimization for capacitive loading
- FT839Dx: external power NPN/MOS
FT839Nx: Built-in power NPN
FT839Mx: 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

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
- AC/DC LED Driver applications

DESCRIPTION

The FT839xx controller device is optimized for high-performance, low power switching mode power supply applications. The FT839xx facilitates CC/CV charger design by eliminating an opto-coupler and TL431. Its highly integrated functions such as Under Voltage Lockout (UVLO), Leading Edge Blanking (LEB) and built-in cable compensation offer the users a high efficiency and low cost solution for AC/DC power applications.

Power supplies built with FT839xx can achieve both highest average efficiency, fast dynamic load response and super low standby power.

Furthermore, FT839xx features fruitful protections like Open Circuit Protection and Over Temperature Protection to eliminate the external protection circuits and provide reliable operations.

FT839Dx is available in SOT23-5 package.
FT839Nx is available in SOP8/DIP8 package.
FT839Mx is available in SOP8 package.

TYPICAL APPLICATION CIRCUIT

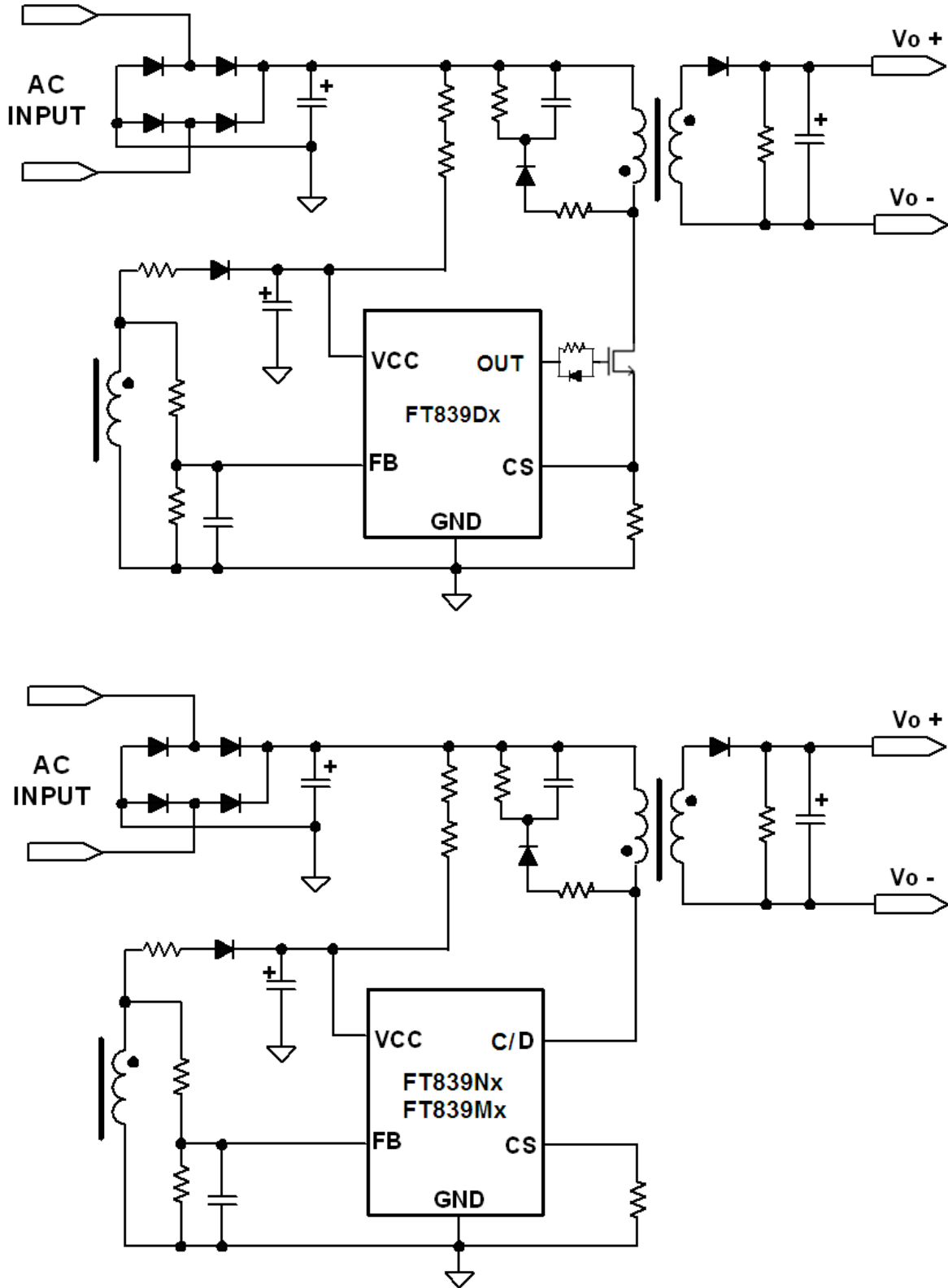


Figure 1: FT839Dx/Nx/Mx Typical Application Circuit

PIN CONFIGURATION

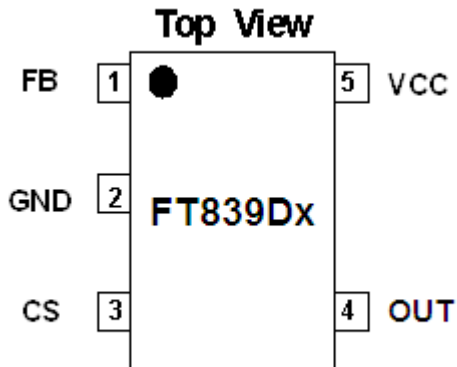


Figure 2: FT839Dx (SOT23-5)

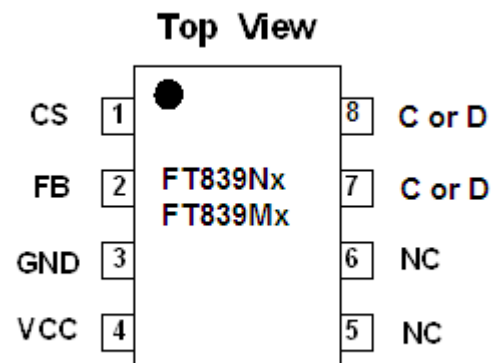


Figure 3: FT839Nx/FT839Mx (SOP8/DIP8)

TERMINAL DEFINITION

SOP8/ DIP8	SOT23-5	Name	Description
1	3	CS	Primary current sense
2	1	FB	Output voltage feedback pin
3	2	GND	Ground.
4	5	VCC	Supply voltage
5/6		NC	No Connection, Don't connect to High voltage(Pin7/8)
7/8		C or D	C: the Collector of the power NPN for FT839Nx; D: the Drain of the power MOS for FT839Mx. This pin is connected to the primary lead of the transformer
	4	OUT	NPN base or MOS gate driver

Table 1