

High Performance Non-isolated Buck LED Driver with PWM Dimming

FEATURES

- PWM dimming support
- No Auxiliary winding for sensing and supplying
- Inductor current boundary conduction mode(BCM)
- Constant current control without secondary sense and feedback circuit
- Built-in 700V Power NPN
- High efficiency with $\pm 3\%$ LED current accuracy
- Ultra low operating current for high efficiency
- Excellent line and load regulations
- Cycle-by-Cycle current limiting
- Fixed OVP voltage for LED open circuit protection
- LED short circuit protection
- Over temperature compensation
- CS resistor short circuit protection.
- VCC under-voltage lockout
- Available in SOP8 and DIP8 packages

APPLICATIONS

- DC/DC or AC/DC LED Driver Applications
- Back Lighting of Flat Panel Displays

DESCRIPTION

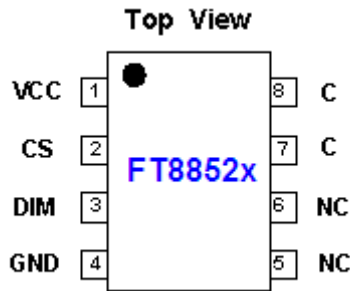
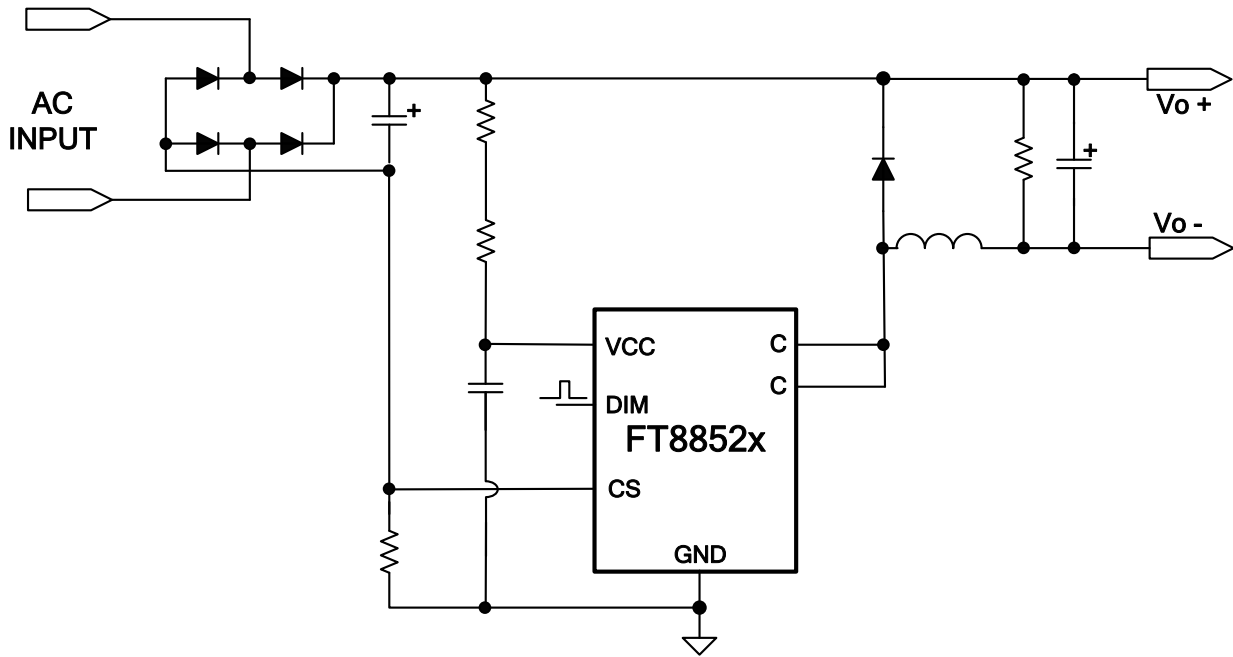
FT8852x is optimized for low cost non-isolated Buck switching mode LED driver applications. It operates in inductor current boundary conduction mode. With source driving architecture, special demagnetization sensing technology and the ultra low operating current, FT8852x doesn't need the auxiliary winding for output current sensing and chip power supplying. FT8852x also integrates a 700V power NPN that further improves the system reliability and lowers the system cost and complexity.

Its highly integrated functions such as Leading Edge Blanking (LEB) and built-in line compensation offer users a high efficiency and low cost solution for constant current LED driver applications.

The multi-protection function of FT8852x greatly enhances the system reliability and safety. FT8852x offers fruitful protections like LED open and short circuit protection, over temperature compensation, CS resistor short circuit protection.

The industry leading OVP voltage accuracy ensures the best LED open circuit protection

TYPICAL APPLICATION CIRCUIT



No.	PIN	FUNCTION
1	VCC	Power supply
2	CS	Current sense. This pin connects a current sense resistor to GND to detect the transformer primary current.
3	DIM	Dimming program PIN.,
4	GND	Ground
5,6	NC	No connection, Don't connect to High voltage(Pin7/8)
7,8	C	Internal high voltage NPN Collector

Table 1