

40V, 1.7A, Boost for 10 White LED Driver

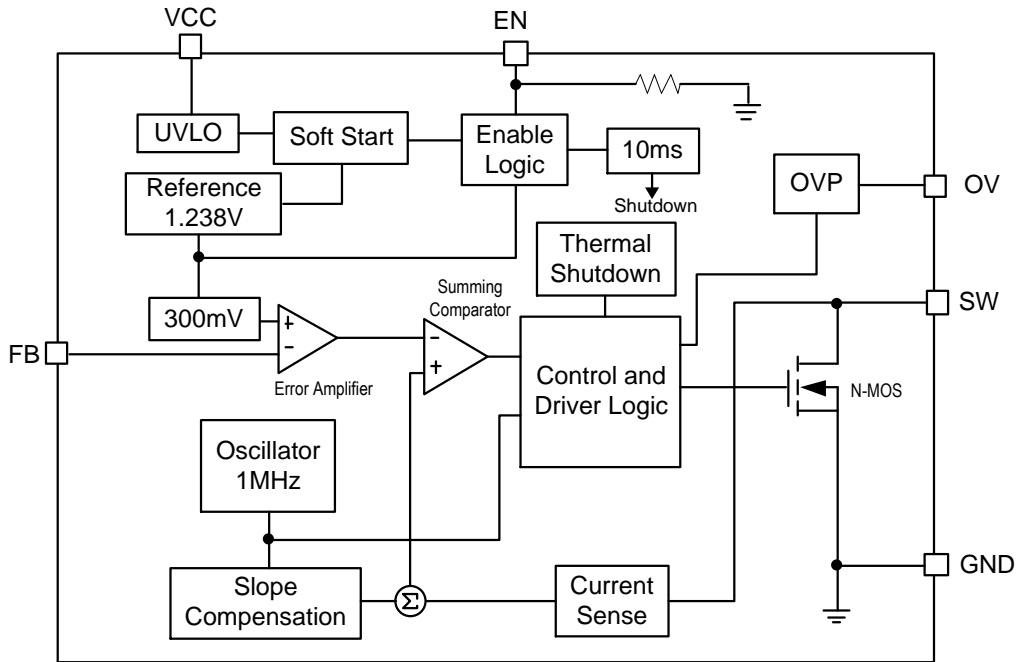
❖ GENERAL DESCRIPTION

The AX2016/A is a step-up converter designed for driving up to 10 series white LEDs for backlighting application. The AX2016/A uses current mode, 1MHz fixed frequency architecture to regulate the LED current, which is set through an external current sense resistor. Its low 300mV feedback voltage reduces power loss and improves efficiency. The OV pin monitors the output voltage and turns off the converter if an over-voltage condition is present due to an open circuit condition. The AX2016/A includes under-voltage lockout, current limiting and thermal shutdown protection preventing damage in the event of an output overload. The driver is available in small 6-pin TSOT-23 and 8-pin TDFN (2mm x 2mm) packages.

❖ FEATURES

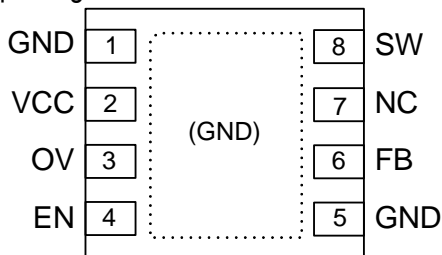
- 2.5V to 5.5V operating input voltage range
- Drives up to 10 series White LEDs
- 1MHz Fixed Switching Frequency
- Wide range for PWM dimming (200Hz to 200KHz)
- Internal 1.7A switching current limit
- Over Voltage Protection (OVP)
- Internal Soft-start Function
- Current limit and Thermal shutdown protection
- Under voltage Lockout
- Available in the 6-pin TSOT-23 and 8-pin TDFN Packages

❖ BLOCK DIAGRAM

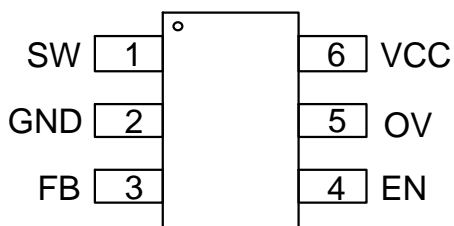


❖ PIN ASSIGNMENT

The packages of AX2016/A are TSOT-23-6L and TDFN-8L; the pin assignment is given by:



TDFN-8L (2*2)
(Top View)



TSOT-23-6L

Name	Description
GND	Ground Pin
VCC	Power Input Pin
OV	OVP Sense Pin
EN	Enable with Dimming Pin; Internal Pull-Low; Logic High Active
FB	Feedback Pin; Put a Resistor to GND to Setting the Current
NC	No Connect Pin
SW	Switch Output Pin