

One-Channel High Power LED Controller

General Description

The OCP8108A is a high power LED driver, non-synchronous boost controller. Ideal for use, the OCP8108A can powered the LED backlight in LCD panels. It contains all of the features needed to implement single ended primary topologies.

The OCP8108A is suitable for topologies which require a ground source N-channel FET including boost, SEPIC and various LED driver applications.

The device features include programmable oscillator frequency, power MOSFET over-current protection (OCP), over-voltage protection (OVP), under-voltage lock-out (UVLO) and Over Temperature protection (OTP). A soft-start feature is provided to minimize in-rush current during start-up.

The OCP8108A is available in SOP-8L package, and it is RoHS compliant. Operating temperature range of the OCP8108A is from -40°C to 85°C.

Features

- Wide Supply Voltage Range: 10.0V ~ 25.0V
- For Boost, SEPIC, LED Driver Applications
- Number of LEDs in series limited by external MOSFETs rating
- External enable control
- EN PWM Dimming Control
- Frequency adjustable: 100KHz ~ 800KHz
- Over-voltage protection
- Power MOSFET current limited
- Low in-rush current soft-start function
- Under-voltage lock-out
- Thermal shutdown
- Low Standby current
- T_A= -40 ~ 85 ℃
- Available in SOP-8L Package

Applications

- LCD White LED Backlighting
- LCD TVs
- Automotive and Infotainment Displays
- Battery Powered Systems
- Industrial Control Systems

■ Pin Configuration

SOP-8L (Top View)

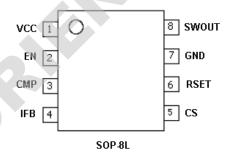


Figure 1, Pin Assignments of OCP8108A

Pin Name	Pin No. SOP-8L	1/0	Pin Function		
VCC	1	Р	Input Power for controller and internal MOSFET driver		
EN	2	I	ON/OFF control for the controller		
CMP	3	I/O	Output of the error amplifier		
IFB	4	I	LED Current Sense Input		
CS	5	I	Current/Voltage sense pin		
RSET	6	I/O	Resistor to set operation frequency		
GND	7	Р	Ground		
SWOUT	8	0	Boost Power MOSFET Drive Output		



■ Typical Application Circuit

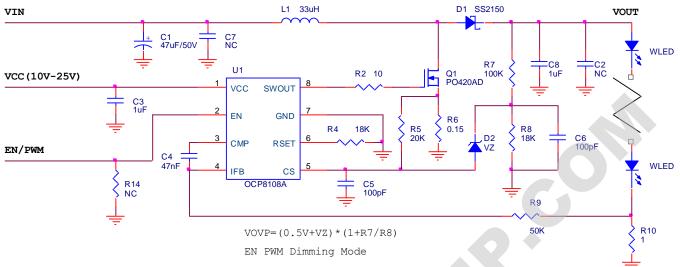


Figure 2A, EN PWM Dimming Typical Application Circuit of OCP8108A

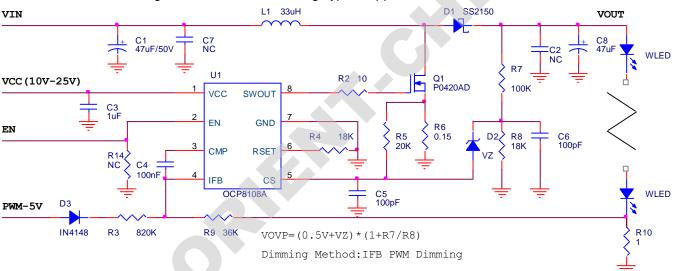
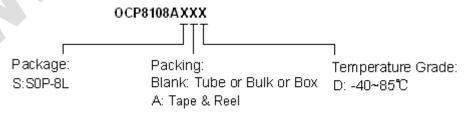


Figure 2B, IFB PWM Dimming Typical Application Circuit of OCP8108A

Ordering Information



Part Number	Package Type	Package Qty	Temperature	Eco Plan	Lead
OCP8108ASAD	SOP-8L	13-in reel 2500pcs/reel	-40∼85℃	Green	Cu

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