

Step-Up White-LED Driver for Mid-size or Large Size Panel

■ General Description

The CP2123 is a step-up DC/DC converter specifically designed for driving white LEDs with a constant current. The device can drive up to 33 white LEDs from a 3.5V power supply or 60 white LEDs from a 10-24V power supply. PWM dimming control is supported to adjust the brightness of white LEDs. The CP2123 switch at 1.4 MHz, allowing the use of tiny components. 300mV feedback voltage minimizes the power loss in the current setting resistor for better efficiency. The CP2123 is equipped with over-voltage protection function, the OVP pin monitors the output voltage and will turn off the device if an over-voltage condition is present to prevent damage from an open circuit condition. The CP2123 is available in SOT23-6L and DFN-8L package.

■ Features

- Inherently matched LED current
- High efficiency: Up to 90%
- Over-voltage protection with linear OVP voltage setting
- Fast 1.4 MHz switching frequency
- Shutdown current: $<1 \mu A$
- SOT23-6L and DFN-8L package
- Up to 1MHz PWM Dimming
- Drives up to 12 series connected LEDs from a 3.5V power supply
- Drives up to 33(11×3) LEDs from a 3.5V power supply
- Drives up to 60 LEDs from a 10V power supply
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SOT23-6L

-40°C ~ 85°C



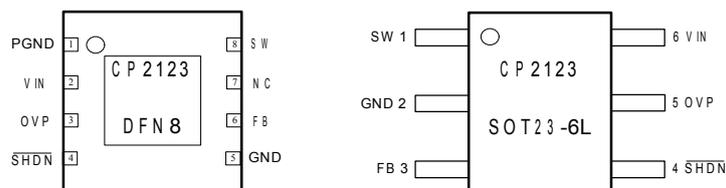
DFN-8L

-40°C ~ 85°C

■ Applications

- Huge screen size mobile phones
- Digital still cameras
- PDAs, PNDs, MP4 players
- Flash or Torch

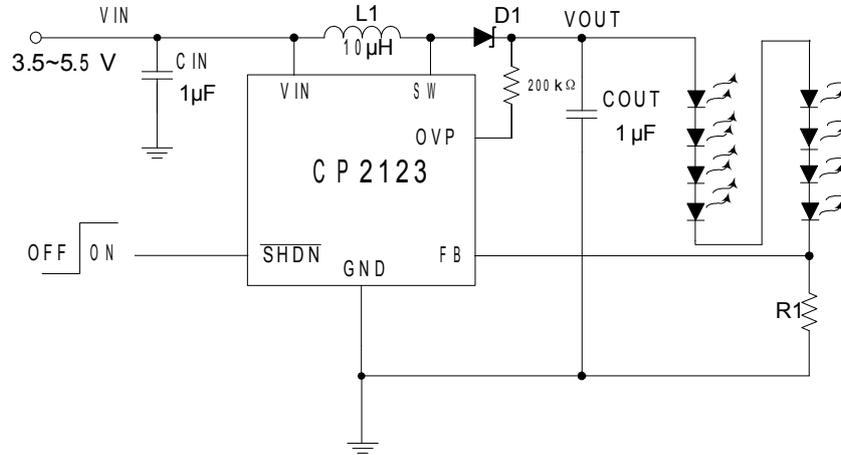
■ Pin Configurations



CP2123 Top View

Step-Up White-LED Driver for Mid-size or Large Size Panel

■ Typical Application Circuit(s)



CP2123 Driving 8 LEDs

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