

3-Channel Low-Dropout Constant-Current Parallel LED Driver with Current Setting Resistor

General Description

The CP2143, a 3-channel low-dropout constant-current parallel LED driver, can be used to drive white LED, blue LED or any color LED whose forward operating voltage is lower than the battery voltage. The unique Smart-Mirror™ technology is introduced in CP2143, which can guarantee a constant LED current in various operating conditions. Without capacitor or inductor, only one resistor is needed for setting the current of the LEDs. The CP2143 is available in a space-saving Pb-free SOT23-6L package.



SOT23-6L

-40°C~85°C

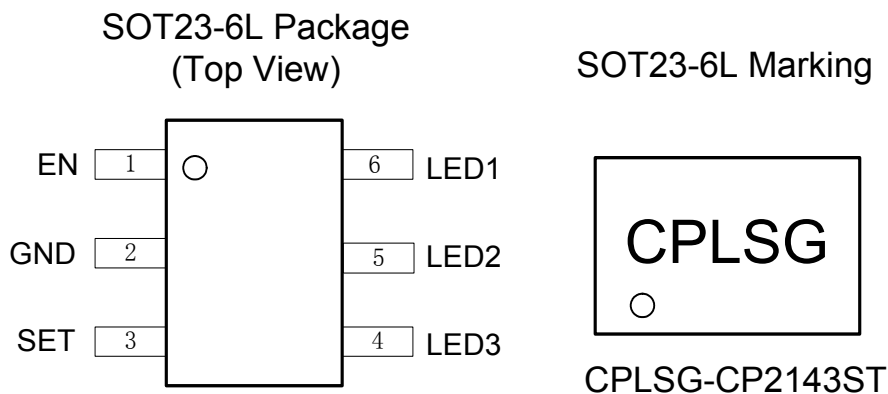
Features

- 38 μ A supply current, can be powered by a GPIO port low as 2.5V
- LED's current set by external resistor, up to 40mA per channel supported
- Only 150mV dropout voltage needed at 20mA per channel
- LED current matching: $\pm 0.3\%$ (typical)
- PWM dimming control or DC voltage control supported
- Over 90% efficiency can be reached
- No EMI and switch noise
- Thermal shutdown protection
- Shutdown current less than 0.1 μ A

Applications

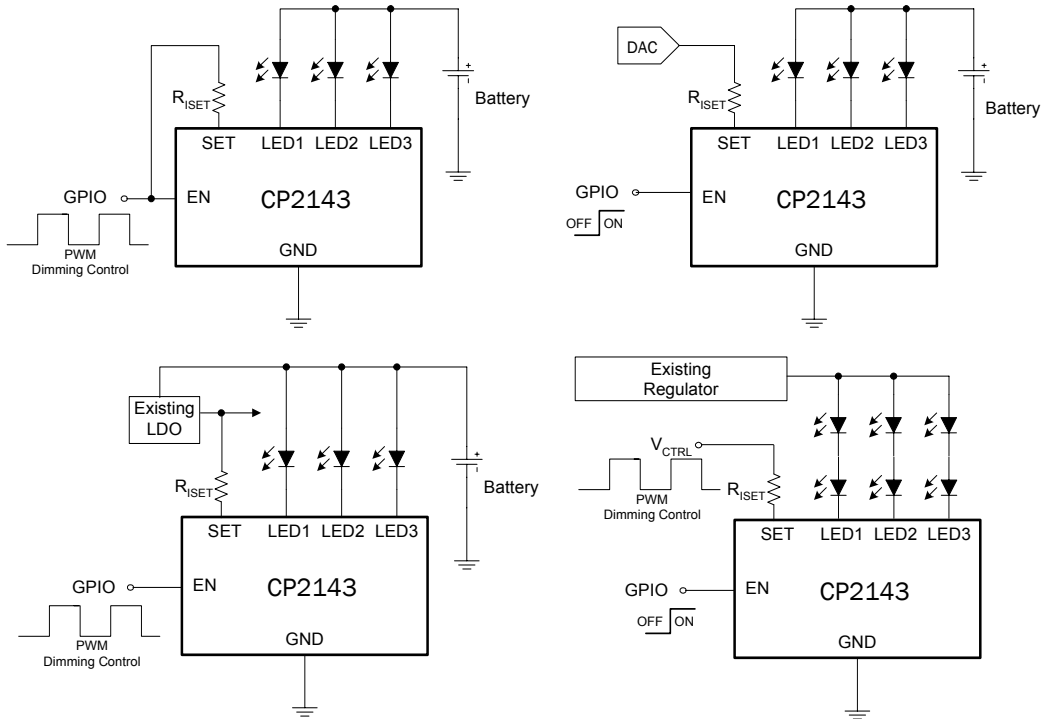
- Mobile phones
- Digital still camera
- MP3 players
- PDAs
- GPS receivers
- Torches

Pin Configurations



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Typical Application circuits



CP2143 Typical Application circuits

Contact with Chiphomer

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