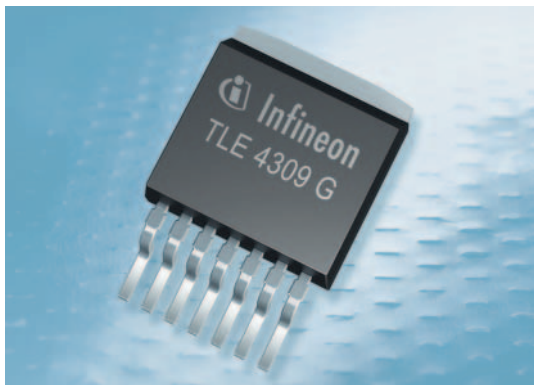
TLE 4309 G

Power LED Driver
Adjustable Constant Current Source

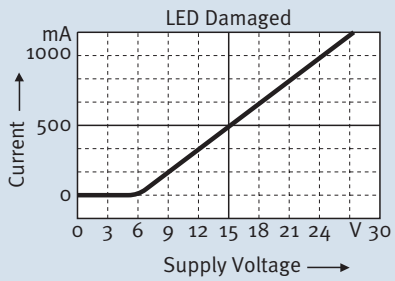


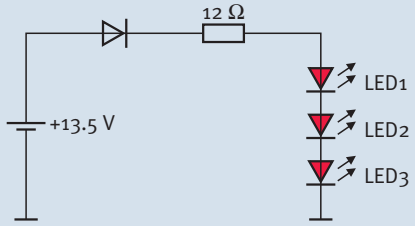
THE TLE 4309 G drives LEDs with constant current resulting in constant brightness and extended lifetimes. The TLE 4309 G is fully capable to withstand harsh requirements due to its internal protection circuits against overload, short circuit and reverse polarity.

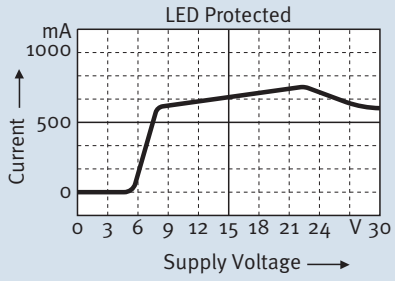
A Chip temperature monitoring circuit shuts off the circuit and prevents the IC from destruction or damage due to over temperature.

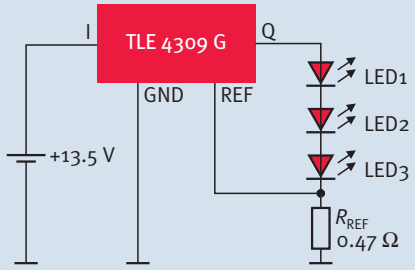
With the PWM input the LED brightness can be regulated via duty cycle. Also PWM = Low sets the TLE 4309 G in sleep mode resulting in a very low current consumption of ‹ 1 µA typ. Due to the high impedance of the PWM input the PWM pin can thus also be used as an enable input.

Advantage of LED Driver vs. Resistor









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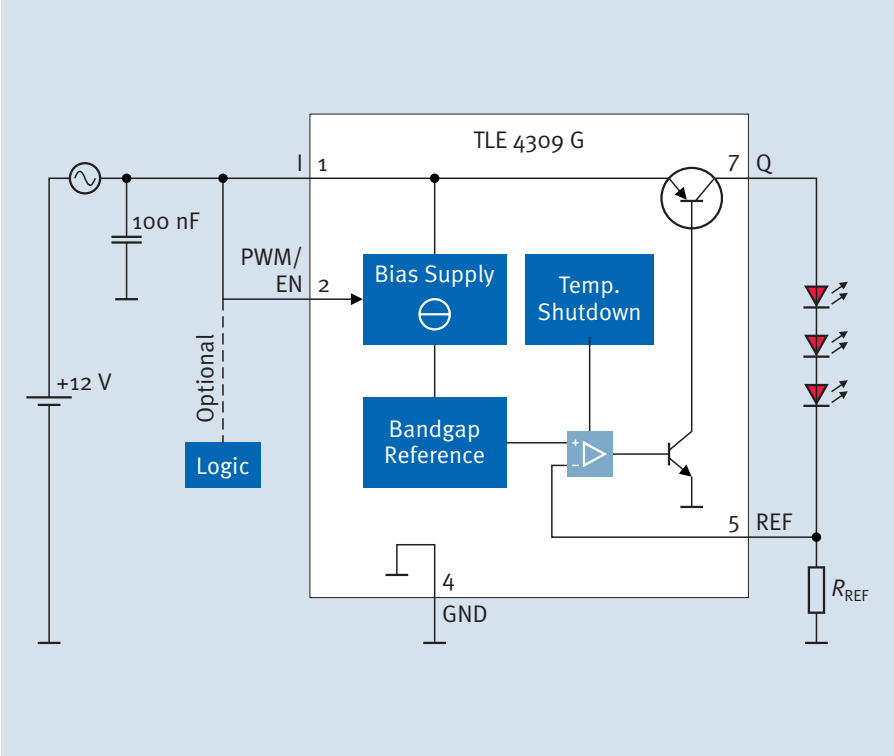
Power Semiconductors

Never stop thinking

TLE 4309 G Block Diagram



Features

- Adjustable Constant Current: up to 500 mA
- Pulse width modulation input (PWM) for brightness control
- 1 µA current consumption in sleep mode
- Fully Suitable for use in automotive and industrial applications
  - Over-Temperature Protection
  - Reverse Polarity Proof
- Operating Input Voltage Range from 4.5 V up to 24 V
- Short circuit Protection to GND and V_{CC}
- Low Drop Voltage: Full brightness at low battery voltage
- Temperature Range –40°C to 150°C
- Power Package PG-TO263-7

Industrial Applications for LED Driver

- Traffic Lights
- Street marker lights
- Displays
- General Lighting
- LED signage

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