PT4205 30V, 1.2A Step-down HB LED Driver

FEATURES

- Simple low parts count
- Wide input voltage range: 5V to 30V
- Up to 1.2A output current
- Single pin on/off and brightness control using DC voltage or PWM
- Typical 3% output current accuracy
- Inherent open-circuit LED protection
- High efficiency (up to 97%)
- Hysteretic Control: No Compensation
- Adjustable Constant LED Current
- Soft over temperature protection
- ESOP8 package for large output power application

GENERAL DESCRIPTION

The PT4205 is a continuous conduction mode inductive step-down converter, designed for driving single or multiple serie connected LEDs efficiently from a voltage source higher than the total LED chain voltage. The device operates from an input supply between 5V and 30V and provides an externally adjustable output current of up to 1.2A. Depending upon the supply voltage and external components, the PT4205can provide more than tens of watts of output power.

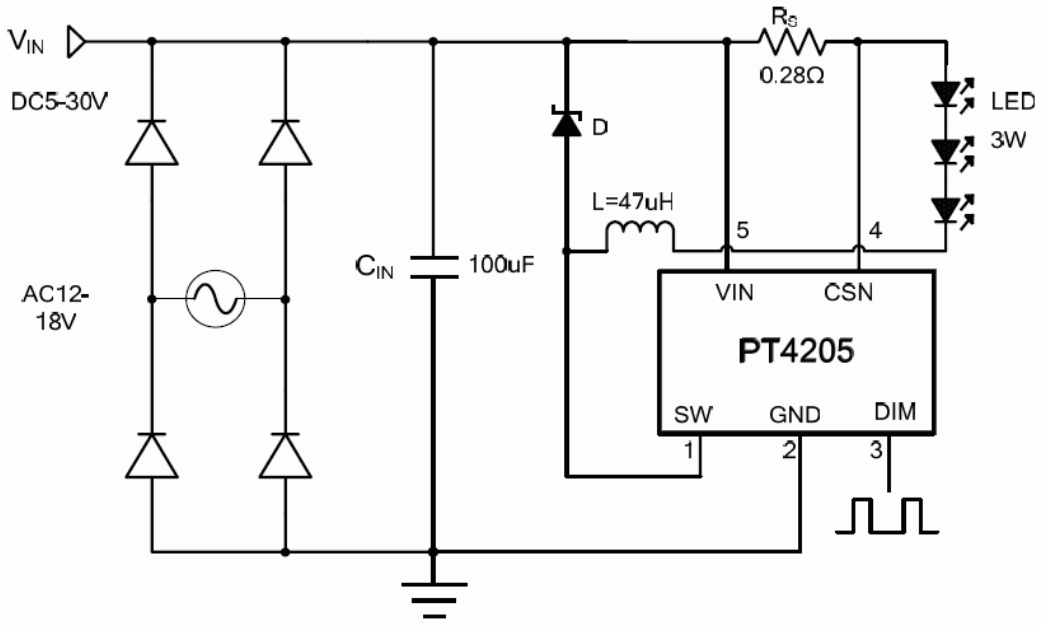
The PT4205 includes the power switch and a high-side output current sensing circuit, which uses an external resistor to set the nominal average output current, and a dedicated DIM input accepts either a DC voltage or a wide range of pulsed dimming. Applying a voltage of 0.3V or lower to the DIM pin turns the output off and switches the device into a low current standby state.

The PT4205 is available in SOT89-5 and ESOP8 packages.

APPLICATIONS

- Low voltage halogen replacement LEDs
- Automotive lighting
- LED back-up lighting
- Illuminated signs

TYPICAL APPLICATION CIRCUIT



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