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## 30V, 1.2A Step-down High Brightness LED Driver with 5000:1 Dimming

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### FEATURES

- Simple low parts count
- Wide input voltage range: 8V to 30V
- Up to 1.2A output current
- Single pin on/off and brightness control using DC voltage or PWM
- Up to 1MHz switching frequency
- Typical 5% output current accuracy
- Inherent open-circuit LED protection
- High efficiency (up to 97%)
- High-Side Current Sense
- Hysteretic Control: No Compensation
- Adjustable Constant LED Current

### APPLICATION

- Low voltage halogen replacement LEDs
- Automotive lighting
- Low voltage industrial lighting
- LED back-up lighting
- Illuminated signs
- SELV lighting
- LCD TV backlighting

### GENERAL DESCRIPTION

The PT4115 is a continuous conduction mode inductive step-down converter, designed for driving single or multiple series connected LED efficiently from a voltage source higher than the total LED chain voltage. The device operates from an input supply between 8V and 30V and provides an externally adjustable output current of up to 1.2A. Depending upon the supply voltage and external components, the PT4115 can provide more than 30 watts of output power.

The PT4115 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 PT4115 is available in SOT89-5 packages.

## TYPICAL APPLICATIONS

