

Features

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| Wide 8.0V to 30V Operating Input Range | 400mΩ Low $R_{DS(ON)}$ Internal Power MOSFETs |
| 1.2A Continuous Output Current | High efficiency (up to 97%) |
| Maximum 1MHz Switching Frequency | Adjustable Constant LED current |
| Over Temperature Protection | PWM and Analog Dimming |
| Inherent Open-Circuit LED Protection | Typical 6% Output Current Accuracy |
| High-side Current Sense | Available in SOT89-5 Package |
| Hysteretic Control: No Compensation | -40°C to +85°C Temperature Range |

Applications

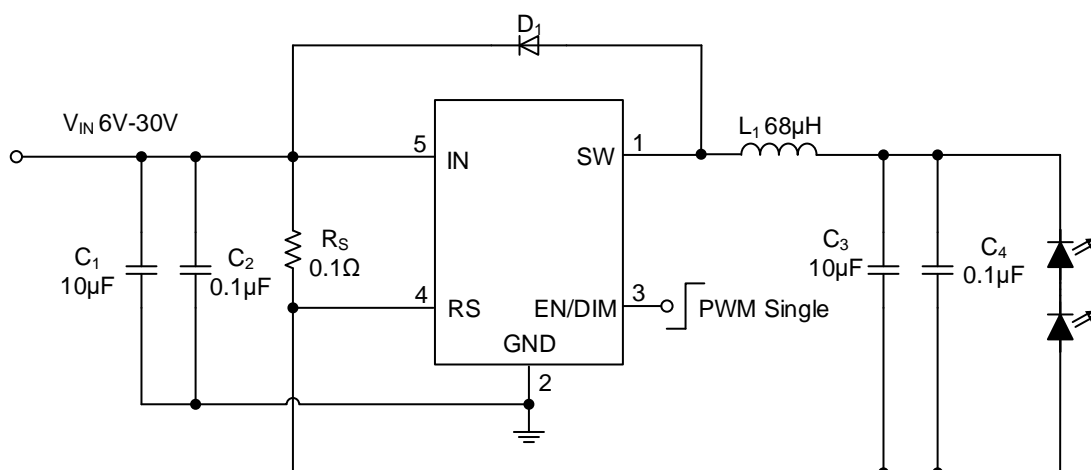
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| Low voltage halogen replacement LEDs | Signs/Emergency Lighting |
| Automotive/Decorative LED Lighting | LED Backlighting |
| Low-Voltage Halogen Replacement | SELV Lighting |

General Description

The TCS5116B is step-down regulator for dimmable LED driver, which is designed in continuous current mode for driving the high-brightness LEDs from a wide input voltage of 8.0V to 30V. The TCS5116B employs a hysteretic control scheme to regulate LED current. Moreover, the control scheme provides optimal loop stabilization and a very quick response time. The TCS5116B implements PWM and analog dimming together on the EN/DIM pin. The TCS5116B includes under-voltage lockout and thermal overload protection to prevent damage in the event of an output overload.

The TCS5116B requires a minimal number of readily available, external components and is available in a space saving SOT89-5 package.

Typical Application Circuit



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