

**Product
Summary
Sheet**

**LED Driver with Average-Mode,
Constant Current Control**

Applications:

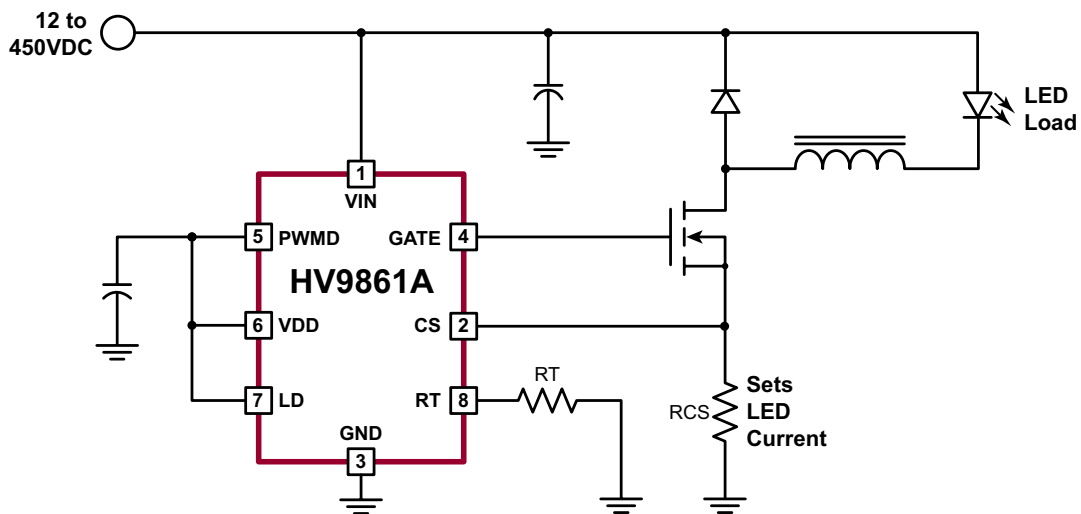
- ▶ DC/DC or AC/DC LED driver applications
- ▶ LED backlight driver for LCD displays
- ▶ General purpose constant current source
- ▶ LED signage and displays
- ▶ Architectural and decorative LED lighting
- ▶ LED street lighting



8-Lead SOIC (LG)



16-Lead SOIC (NG)



Typical Application Circuit

Product Overview:

The HV9861A is a patented, average-mode, constant current control LED driver IC operating in a constant off-time mode. Unlike the HV9910B, this control IC does not produce a peak-to-average error, and therefore greatly improves accuracy, line and load regulation of the LED current without any need for loop compensation or high-side current sensing. The output LED current accuracy is $\pm 3\%$.

The IC is equipped with a current limit comparator for hiccup-mode output short circuit protection. Internal over-temperature protection is provided. The internally regulated voltage (V_{DD}) for the HV9861A is 7.5V.

The ICs can be powered from a 12 - 450V supply. A PWM dimming input is provided that accepts an external control TTL-compatible signal. The output current can be programmed by an internal 270mV reference, or controlled externally through a 0 - 1.5V dimming input.

The ICs are pin-to-pin compatible with the Supertex HV9910B and HV9961, and can be used as drop-in replacements for many applications to improve the LED current accuracy and regulation.

Features:	Benefits:
Patented, average-mode, constant current control	Improved accuracy without need for loop compensation and high-side current sensing
Built-in PWM/linear dimming	Simple controls to adjust LED brightness
Built in HV regulator $V_{IN} = 450V$	Works directly from high voltage input, save components
Pin-compatible with Supertex HV9910B and HV9961	Minimal design effort, short development cycle



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Ordering Information / Availability

Part Number	Package Options	Samples	Lead Time
HV9861ALG-G	8-Lead SOIC (Green)	Now	4-6 Weeks ARO
HV9861ANG-G	16-Lead SOIC (Green)	Now	4-6 Weeks ARO

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the HV9861A, please contact your local area Supertex sales office, or contact the main office in the US at:

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