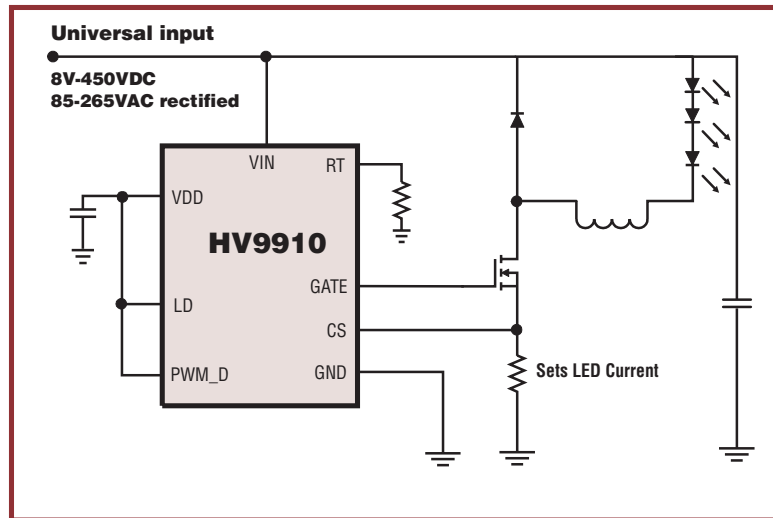


# Product Summary Sheet

# HV9910 Universal High Brightness LED Driver

## Applications

- DC/DC or AC/DC LED Driver applications
- RGB Backlighting LED Driver
- Back Lighting of Flat Panel Displays
- General purpose constant current source
- Signage and Decorative LED Lighting
- Automotive
- Chargers



Typical Application Circuit

## Product Overview:

HV9910 is designed to convert high voltage supplies (85 – 265 VAC rectified) or (8V-450V DC) to a constant current source for powering a string or a combination of strings of HB LEDs. HV9910 utilizes constant frequency peak current control pulse width modulation (PWM) operation using a small inductor and an external switch to minimize the LED driver losses. Unlike conventional PWM controllers it uses a simple On/Off control to regulate the LED current, thus simplifying control circuit design. HV9910 features both linear and PWM dimming capability.

It is a highly flexible and simple LED driver IC that achieves high efficiency (over 93%), features a lower parts count than other solutions, while offering a very low system cost.

Output current can be programmed between few milliamps to more than 1.0A. HV9910 Driver delivers constant current driving high brightness LEDs and other constant current loads. HV9910 uses a rugged high voltage junction isolated process that can withstand an input voltage surge up to 450V.

## Features of HV9910:

## Benefits:

Low component count

Low-cost solution, higher reliability, minimum board space

Built-in PWM/linear dimming

Simple controls to adjust LED brightness

Universal input voltage 85-265 AC rectified

Versatile, one design for worldwide use

Built in HV regulator  $V_{in} = 450V$

Works directly from high voltage input, save components

Up to 94% efficient

Saves power, reduces heat dissipation

No compensation required

Minimum design effort, short development cycle

Constant current regulation

Provides constant LED brightness, extends life of LEDs

Easy programming output current

Simple to design, one resistor change

# HV9910

## Universal High Brightness LED Driver

### Typical Performance

<u>Device</u>	<u>V<sub>IN</sub></u>	<u>V<sub>DD</sub></u>	<u>I<sub>DD(ext)max</sub></u>	<u>VCS</u>
HV9910	8 - 450VDC	7.5V	1.0mA	250mV

### Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
HV9910LG	8-Pin SO	2 - 3 weeks	4 - 5 weeks ARO
HV9910NG	16-Pin SO	2 - 3 weeks	4 - 5 weeks ARO
HV9910P	8-Pin DIP	2 - 3 weeks	4 - 5 weeks ARO

### Demo Boards Available

<u>Part Number</u>	<u>V<sub>IN</sub></u>	<u>V<sub>OUT</sub></u>	<u>I<sub>OUT</sub></u>
HV9910DB1	90V - 135VAC	40V	1.5A max.
HV9910DB2	90V - 265VAC	40V	350mA max.
HV9910DB3	8V - 30V	4V	900mA max.
HV9910DB4	8V - 30V	22V	350mA max.

### Product Contact

If you have any questions regarding the HV9910, samples, contact Supertex Applications at:

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Contact your local Area Sales Office