

# Product Summary Sheet

## 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
- ▶ Chargers



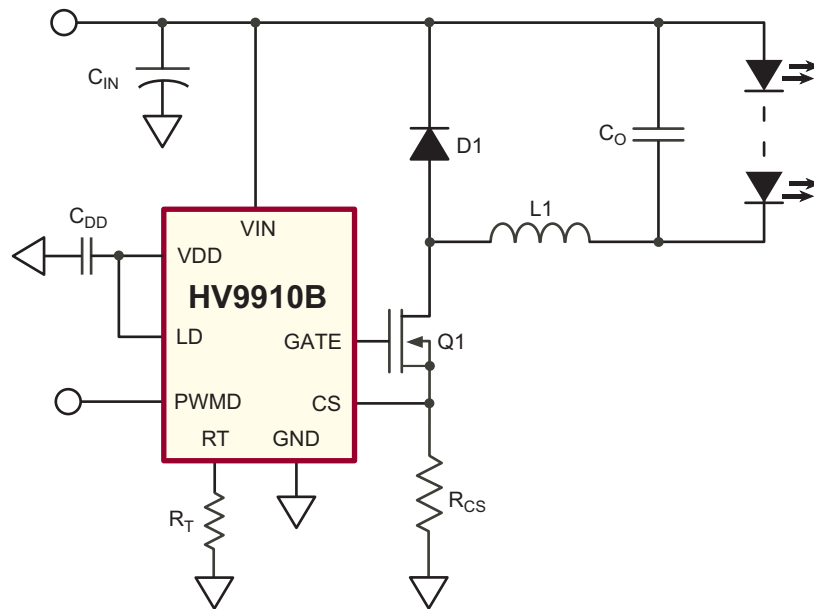
8-Lead SO (LG)



16-Lead SO (NG)



# HV9910B Universal High Brightness LED Driver



Typical Application Circuit

## Product Overview:

The HV9910B is an open loop current mode control LED driver IC. The HV9910B can be programmed to operate in either a constant frequency or constant off-time mode. It includes an 8 – 450V linear regulator which allows it to work from a wide range of input voltages without the need for an external low voltage supply. The HV9910B includes a PWM dimming input that can accept an external control signal with a duty ratio of 0 – 100% and a frequency of up to a few kilohertz. It also includes a 0 – 250mV linear dimming input which can be used for linear dimming of the LED current.

The HV9910B is ideally suited for buck LED drivers. Since the HV9910B operates in open loop current mode control, the controller achieves good output current regulation without the need for any loop compensation. PWM dimming response is limited only by the rate of rise and fall of the inductor current, enabling very fast rise and fall times. The HV9910B requires only three external components (apart from the power stage) to produce a controlled LED current making it an ideal solution for low cost LED drivers.

Features:	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 of output current	Simple to design, one resistor change

**Supertex inc.**

# HV9910B

## Universal High Brightness LED Driver

### Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
HV9910BLG-G	8-Lead SO (Green)	Now	4-5 Weeks
HV9910BNG-G	16-Lead SO (Green)		

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



### Product Contact

For any questions regarding the HV9910B please contact your local area Supertex sales office, or contact the main office in the US at:

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