

**Product
Summary
Sheet**

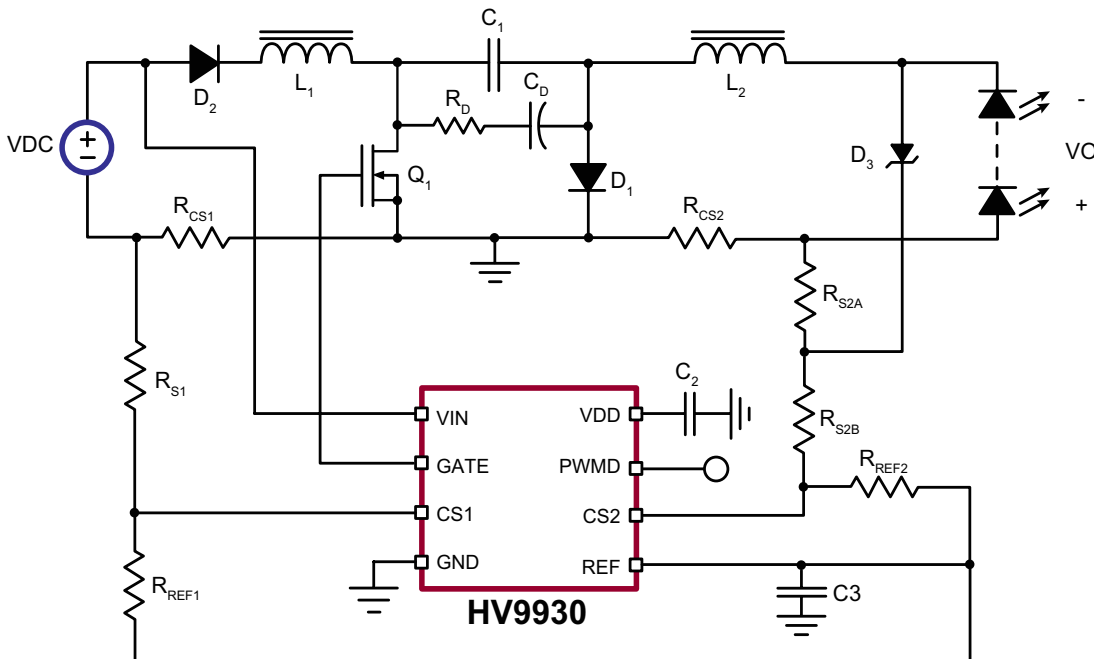
Hysteretic Boost-Buck LED Driver

Applications:

- ▶ Automotive LED Lighting
- ▶ Battery Powered LED Lamps
- ▶ RGB Backlight applications
- ▶ Low Voltage AC/DC or DC/DC LED Drivers



8_Lead SOIC (LG)



Typical Application Circuit

Product Overview:

The HV9930 is a variable frequency PWM controller IC designed to drive LED lamps using a boost-buck topology. The HV9930 utilizes a hysteretic current-mode control to regulate both the input and output currents. This provides fast transient response (required for PWM dimming of the LED lamp) without the necessary complexity of loop compensation components. Input current control enables current limiting during startup and output overload conditions. Output current control provides constant LED current.

The boost-buck topology is ideal for applications in which the LED voltage needs automatic step up and/or step down from the input voltage, such as automotive lighting, RGB backlight for TV's, monitors and displays, and DC/DC LED driver modules.

| Features: | Benefits: |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Hysteretic control | Low external part count. No compensation components. Fast transient response. |
| Boost-Buck topology | Automatic step up or down of output (LED) voltage. Inherent low EMI. Capacitive isolation between Input and output to faults. |
| DC Input range: 8.0 to 200VDC | Meets automotive input range, including transients. Ideal for high voltage DC/DC operation. |
| Input and output current sensing benefits | More accurate LED current sensing. Inherent output short circuit protection. |



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Ordering Information / Availability

| <u>Part Number</u> | <u>Package Option</u> | <u>Samples</u> | <u>Lead Time</u> |
|--------------------|-----------------------|----------------|------------------|
| HV9930LG-G | 8-Pin SOIC (Green) | NOW | 4-6 weeks ARO |

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



Product Contact

For any questions regarding the HV9930, please contact your local area Supertex sales office, or contact the main office in the US at:

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