

# Product Summary Sheet

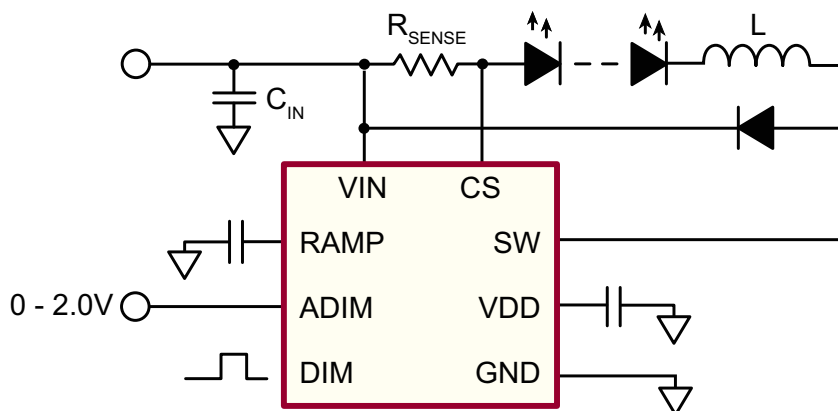
## HV9918 Hysteretic, Buck, High Brightness LED Driver with High-Side Current Sensing

### Applications:

- ▶ Low voltage industrial and architectural LED lighting
- ▶ General purpose constant current source
- ▶ Signage and decorative LED lighting
- ▶ Indicator and emergency lighting



8-Lead DFN (K7)



Typical Application Circuit

### Product Overview:

The HV9918 is a PWM controller IC designed to drive high brightness LEDs using a buck topology. It operates from an input voltage of 4.5 to 40VDC and employs hysteretic control with a high-side current sense resistor to set the constant output current up to 700mA. The device is well suited for applications requiring a wide input voltage range. The high-side current sensing and an integrated current-setting circuitry minimize the number of external components while delivering an accurate average output.

Dedicated pulse-width modulation (PWM) input enables pulsed LED dimming over a wide range of brightness levels. A hysteretic control method ensures excellent input supply rejection and fast response during load transients and PWM dimming.

The HV9918 offers an analog-controlled PWM dimming feature that reduces the output current by applying an external DC voltage below the internal 2.0V threshold voltage from ADIM to GND. ADIM can also accept input from a resistor divider including a negative temperature coefficient (NTC) thermistor connected between ADIM and GND, or a positive temperature coefficient (PTC) thermistor connected between ADIM and VDD thus providing a PWM thermal-foldback feature that reduces the LED current when the temperature of the LED string exceeds a specified temperature point. Additional features include thermal-shutdown protection.

The high switching frequency up to 2.0MHz permits the use of small inductors and capacitors, minimizing space and cost in the overall system.

The HV9918 comes in a small 8-Lead DFN package and is ideal for industrial and general lighting applications.

Features:	Benefits:
Hysteretic control with high-side current sensing	Current sense resistor sets constant output current
Up to 2.0MHz switching frequency	Small inductors and capacitors may be used in the circuit design, reducing system size and cost
Analog or PWM control signal for PWM dimming	Provides a high dimming range and true constant color
Embedded FET	Reduced component count in solid-state lighting designs
Over-temperature protection and wide operating temperature range (-40 to +125°C)	Protected against damage in extreme temperature conditions

**Supertex inc.**



## Hysteretic, Buck, High Brightness LED Driver with High-Side Current Sensing

### Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
HV9918K7-G	8-Lead DFN	Now	4-6 Weeks ARO

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



### Product Contact

For any questions regarding the HV9918 please contact your local area Supertex sales office, or contact the main office in the US at:

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