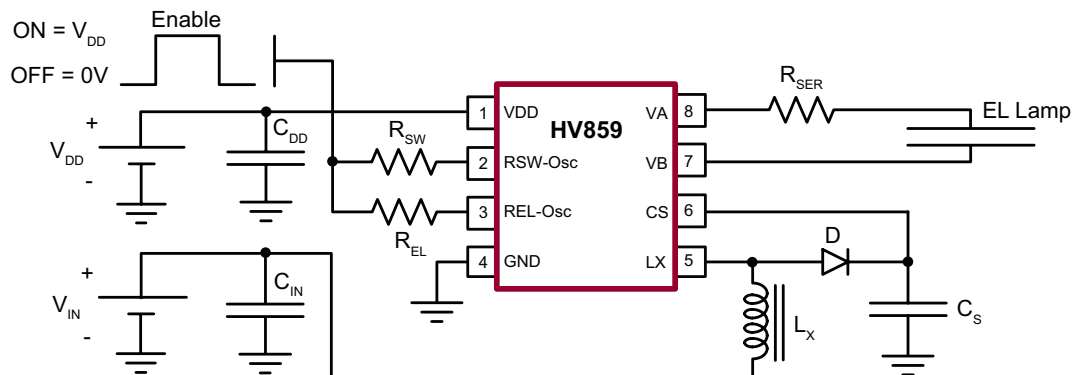


## Product Summary Sheet

# High Voltage EL Lamp Driver for Low Noise Applications

### Applications:

- ▶ LCD backlighting
- ▶ Mobile Cellular Phone keypads
- ▶ PDAs
- ▶ Handheld wireless communication products
- ▶ Global Positioning Systems (GPS)



Typical Application Circuit

### Product Overview:

The Supertex HV859 is a high voltage driver designed for driving Electroluminescent (EL) lamps of up to 5 square inches. The input supply voltage range is from 1.8 to 5.0V. The device uses a single inductor and a minimum number of passive components. The nominal regulated output voltage that is applied to the EL lamp is  $\pm 105V$ . The chip can be enabled/disabled by connecting the resistor on RSW-Osc to VDD/GND.

The HV859 has two internal oscillators, a switching MOSFET, and a high voltage EL lamp driver. The frequency for the switching MOSFET is set by an external resistor connected between the RSW-Osc pin and the supply pin VDD. The EL lamp driver frequency is set by an external resistor connected between the REL-Osc pin and the VDD pin. An external inductor is connected between the LX and VDD pins or VIN for split supply applications. A 0.003-0.1 $\mu F$  capacitor is connected between CS and ground. The EL lamp is connected between VA and VB.

The switching MOSFET charges the external inductor and discharges it into the capacitor at CS. The voltage at CS will start to increase. Once the voltage at CS reaches a nominal value of 105V, the switching MOSFET is turned OFF to conserve power. The outputs VA and VB are configured as an H bridge and are switching in opposite states to achieve  $\pm 105V$  across the EL lamp.

Features:	Benefits:
Patented audible noise reduction	Low audible noise levels
Patented lamp aging compensation	Longer lamp life
Patented output timing for high efficiency	Longer battery life
Single cell lithium ion compatible	Able to work with multiple input voltages
Wide input voltage range 1.8 to 5.0V	Versatile
Separately adjustable lamp and converter frequencies	Easy to design
Output voltage regulation	Uniform brightness over the battery range
Split supply capability	Increased efficiency, longer battery life



MLP-8 (K7)



MSOP-8 (MG)



031811

## High Voltage EL Lamp Driver for Low Noise Applications

### Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
HV859MG-G	8 Pin MSOP (Green)	Now	4-5 Weeks
HV859K7-G	8 Pin MLP (Green)		

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



### Product Contact

For any questions regarding the HV859 please contact your local area Supertex sales office, or contact the main office in the US at:

Telephone: 800-222-9883  
 Fax: 408-222-4895  
 EMail: [mktg@supertex.com](mailto:mktg@supertex.com)  
 Website: [www.supertex.com](http://www.supertex.com)

***Supertex inc.***  
 1235 Bordeaux Drive, Sunnyvale, CA 94089