

Product Summary Sheet

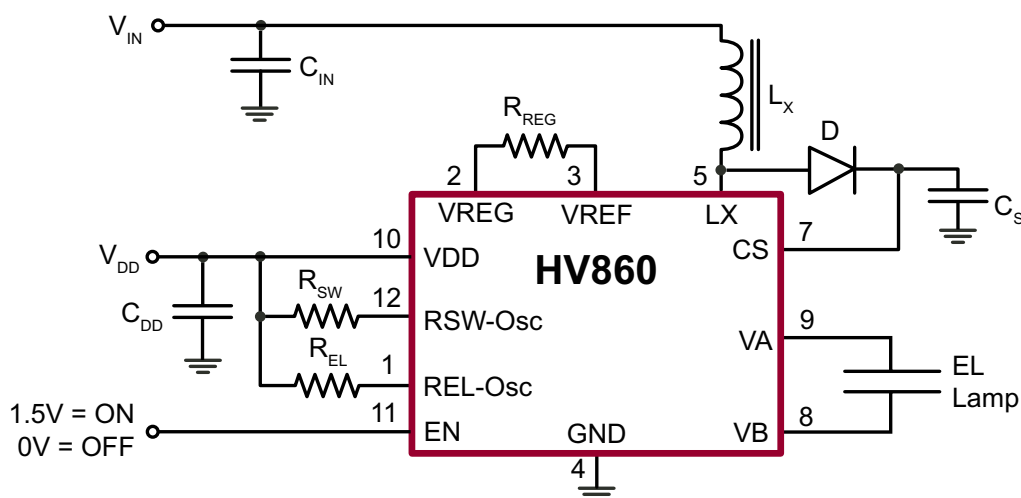
High Voltage, Dimmable EL Lamp Driver for Low Noise Applications

Applications:

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



QFN-12 (K7)



Typical Application Circuit

Product Overview:

The HV860 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 REL-Osc pin and VDD pin. An external inductor is connected between the LX and VDD pins or VIN for split supply applications. A 3.0nF 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 110V, 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 $\pm 110V$ across the EL lamp.

EL lamp dimming can be accomplished by changing the input voltage to the VREG pin. The VREG pin allows an external voltage source to control the V_{CS} amplitude. The V_{CS} voltage is approximately 87 times the voltage seen on V_{REG} .

Features:	Benefits:
Audible noise reduction	Low audible noise levels
Dimming capability	Ability to fade the lamp
Single cell lithium ion compatible	Commonly available in cellular phones
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
1.5V Logic high enable	Ease of control



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Ordering Information / Availability

Part Number	Package Option	Samples	Lead Time
HV860K7-G	12-Pin QFN (Green)	Now	4-5 Weeks

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



Product Contact

For any questions regarding the HV860 please contact your local area Supertex sales office, or contact the main office in the US at:

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