HV857L

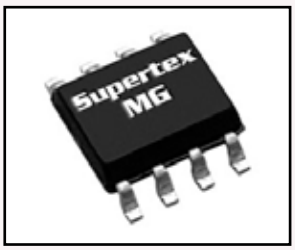
Low Noise, High Voltage EL Lamp Driver

Product Summary Sheet

Applications:

- Mobile cellular phones
- Keypad and LCD backlighting
- Portable instrumentation
- Handheld wireless communication devices

8-Lead DFN (K7)



8-Lead MSOP (MG)

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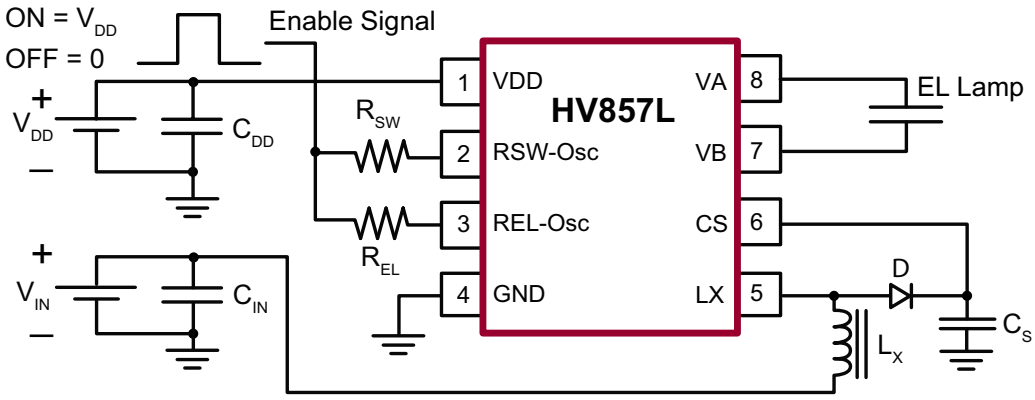

Typical Application Circuit

Product Overview:

The Supertex HV857L is a low noise, high voltage driver designed for driving Electroluminescent (EL) lamps of up to 5 square inches. It is the low noise version of the EL lamp driver HV857. 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 ±95V. The chip can be enabled/disabled by connecting the resistor on R_{SW-OSC} to V_{DD}/ground.

The HV857L 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 0.003-0.1µF 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 95V, 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 ±95V across the EL lamp.

Features:	Benefits:
Audible noise reduction	Low audible noise levels
Split supply capability	Increased efficiency, longer battery life
190Vpp regulated output voltage	Higher and uniform brightness over wide input voltage range
Enable function	Ease of control from microprocessor or other logic circuitry. No external components required for this function
Single cell lithium ion compatible	Compatible with most common cell phone batteries
150nA shutdown current	Minimum usage of the battery while the lamp is in standby mode

Supertex inc.

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Ordering Information / Availability

Part Number	Package Option	Samples	Lead Time
HV857LK7-G	8-Lead DFN	Now	4-6 Weeks
HV857LMG-G	8-Lead MSOP	Now	4-6 Weeks

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

Product Contact

For any questions regarding the HV857L, please contact your local area Supertex sales office, or contact the main office in the US at:

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