

Features

- Drives Up to 40 LEDs from 5V Supply
- High Efficiency: 91%
- 24V Internal Power Switch
- Fast 1MHz Switching Frequency
- Over 260mA Output Current Capacity
- PWM Brightness Control
- Soft-Start
- Open LEDs Shutdown
- Internal Current Limit
- Under Voltage Lockout
- Thermal Shutdown
- Open Power MOSFET Drain Protection
- PSOP-8
- Lead-Free and RoHS Compliant

Applications

- White LED Backlight Display for PDA
- Pocket PC
- eBook
- Video Plays

General Description

The GS7002 is a DC/DC step-up converter that delivers an accurate constant current ideal for driving Series LEDs from a single cell Lithium-Ion battery. The GS7002 Operation at a fixed switching frequency of 1MHz allows the device to be used with small value external ceramic capacitors and inductor. A low 0.2V feedback voltage minimizes power loss in the current setting resistor for high efficiency. The OVP pin monitors the output voltage and latch the converter whenever the LEDs are open.

LED dimming can be done by using a DC voltage, a logic signal, or a pulse width modulation (PWM) signal up to 200Hz. The shutdown input pin allows the device to be placed in power-down mode with “zero” quiescent current. In addition to thermal protection and overload current limiting, the device also enters a very low power operating mode during “Open LED” fault conditions.