

High-Efficiency White LED Charge Pump

Features

- Input Range : 2.7V to 5V
- Quiescent Current: 90 μ A
- Regulated 5V \pm 4% Output
- 5V Output Current
 - 90mA with $V_{IN} \geq 3.0V$
 - 40mA with $V_{IN} \geq 2.7V$
- High Frequency 1MHz Operation
- Shutdown Mode Draws Less than 1 μ A
- Shot-Circuit/Over-temperature Protection
- TDFN2X2-6, SOT-23-6 and TSOT-23-6 Package

Applications

- Portable Communication Devices
- Cellular Phones
- PDA
- Handheld Electronics
- Digital Cameras
- LED/Display Back Light Driver
- LED for Camera Flash

General Description

The G5910 Charge-Pump is a switched-capacitor voltage converter that delivers a regulated output. The external inductor is not required for operation. Using small capacitors, the G5910 can deliver up to 90mA (@ V_{IN} =3V) to the voltage-regulated output. The G5910 features high efficiency over a large portion of its load range making this device ideal for battery-powered applications. The combination of few external components and small package size keeps the total converter board area to a minimum in space-restricted applications. The G5910 contains a thermal management circuit to protect the device under continuous output short circuit conditions.

The G5910 is available in a surface mount TDFN2X2-6, SOT-23-6 and TSOT-23-6 package.

Ordering Information

ORDER NUMBER	MARKING	VOLTAGE	TEMP. RANGE	PACKAGE (Green)
G5910-45RBU	591A	4.5V	-40°C to 85°C	TDFN2X2-6
G5910-50RBU	591B	5.0V	-40°C to 85°C	TDFN2X2-6
G5910-45TBU	5911x	4.5V	-40°C to 85°C	SOT-23-6
G5910-50TBU	5910x	5.0V	-40°C to 85°C	SOT-23-6
G5910-45TPU	5911x	4.5V	-40°C to 85°C	TSOT-23-6
G5910-50TPU	5910x	5.0V	-40°C to 85°C	TSOT-23-6

Note: RB: TDFN2X2-6 TB: SOT-23-6 TP: TSOT-23-6
 U: Tape & Reel

Pin Configuration

