



# Boost White LED Driver with PWM Brightness Control in 2mm x 2mm TDFN Package

## Features

- 2.7V to 7V Input Voltage Range
- 600kHz Operating Frequency
- 38V High Output Voltage
- Over-Voltage Protection
- 5kHz to 100kHz PWM Brightness Control
- Built-in Cycle-by-Cycle Current Limit
- 0.2V Low Reference Voltage
- TDFN2X2-6 Package

## Applications

- Cellular Phone
- LED Module
- Compact Back Light Module

## General Description

The G5139 boost converter contains a  $0.46\Omega$  internal switch. The IC operates at constant frequency 600 kHz, allowing the use of tiny, low cost and low height inductors and capacitors. The IC operates from a 2.7V to 7V supply voltage. High inrush current at start-up is eliminated using large compensation capacitor. Constant frequency current mode PWM architecture results in low, predictable output noise. The G5139 includes cycle-by-cycle 700mA current limit to maximize inductor current and over-temperature protection circuit. The over-voltage protection will be enabled when VOUT exceeds 38V. The current of LED is set by a resistor connected between FB and GND. The G5139 is available in TDFN2X2-6 package.

## Ordering Information

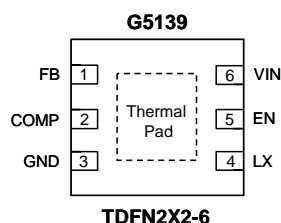
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G5139RBBU	5139	-40°C to 85°C	TDFN2X2-6
G5139RBBD	5139	-40°C to 85°C	TDFN2X2-6

Note: RB: TDFN2X2-6

B : Bonding Code

U & D: Tape & Reel

## Pin Configuration



Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

## Typical Application Circuit

