

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

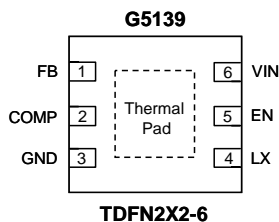
The G5139 boost converter contains a 0.46Ω internal switch. The IC operates at constant frequency 600 kHz, allowing the use of tiny, low cost and low height inductors and capacitors. The IC operates from a 2.7V to 7V supply voltage. High inrush current at start-up is eliminated using large compensation 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

