# High Voltage Multi-Topology LED Driver

#### **Features**

- High Voltage: VIN up to 36V, VOUT up to 36V
- 2.5A Switch Current
- Buck, Boost or Buck-Boost Operation
- Current Mode PWM with 500KHz Switching Frequency
- Easy dimming : Analog, PWM or PWM Converting to Analog with One External Capacitor
- Soft Start to Avoid Inrush Current
- Programmable Over Voltage Protection to Limit Output Voltage
- VIN Under Voltage Lockout and Thermal Shutdown
- 12-Lead TDFN and MSOP-10 (FD) Package

### **General Description**

The G2602 is a current mode DC/DC converter with an internal 2.5A, 40V switch specifically designed to drive LEDs. The G2602 operates as a LED driver in buck, boost and buck-boost mode. The LED current is externally programmable with a 120mV sense resistor. With a 500KHz operating frequency, the external inductor and input/output capacitors can all be small. Dimming can be either analog, PWM, or PWM converting to analog with an external capacitor.

The G2602 is available in TDFN-12L 3x3 and MSOP-10 (FD) package.

## **Applications**

- GPS, Portable DVD Backlight
- Desk Light and Room Lighting
- Industrial Display Backlight

## **Ordering Information**

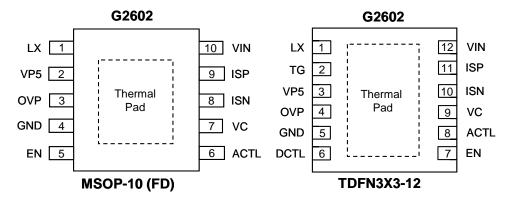
| ORDER<br>NUMBER | MARKING | TEMP.<br>RANGE  | PACKAGE<br>(Green) |
|-----------------|---------|-----------------|--------------------|
| G2602RQ1U       | 2602    | -30°C to +105°C | TDFN3X3-12         |
| G2602F61U       | G2602   | -30°C to +105°C | MSOP-10 (FD)       |

Note: RQ:TDFN3X3-12 F6:MSOP-10 (FD)

1: Bonding Code U: Tape & Reel

## **Pin Configuration**

#### **Top View**



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