



## Small Package, High Performance, Asynchronous Boost For 6 series or 3x13 WLED Driver

### General Description

The ME2214 is a high frequency, asynchronous boost converter. The internal MOSFET can support up to 6 series or 3x13 White LEDs for backlighting and OLED power application, and the internal soft start function can reduce the inrush current. The device operates with 1-MHz fixed switching frequency to allow small external components and to simplify possible EMI problems. Moreover, the IC comes with 26V over voltage protection to allow inexpensive and small-output capacitors with lower voltage ratings. The LED current is initially set with the external sense resistor  $R_s$ .

### Features

- VIN Operating Range : 2.5V to 5.5V
- Internal Power N-MOSFET Switch
- Wide Range for PWM Dimming (100Hz to 200kHz)
- 1MHz Switching Frequency
- Minimize the External Component Counts
- Internal Soft Start
- Internal Compensation
- Under Voltage Protection
- Over Voltage Protection
- Over Temperature Protection

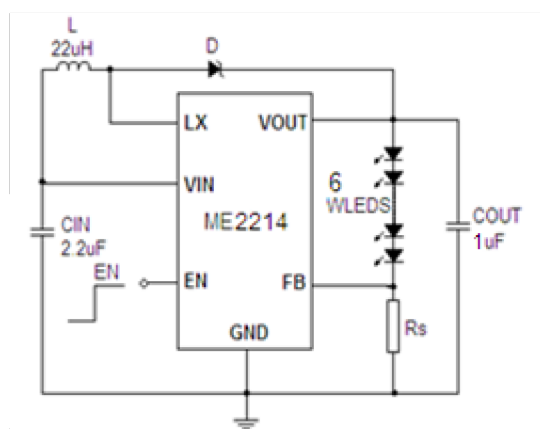
### Typical Application

- Cellular Phones
- Digital still cameras
- PDAs and Smart Phones and MP3 and OLED.
- Probable Instruments

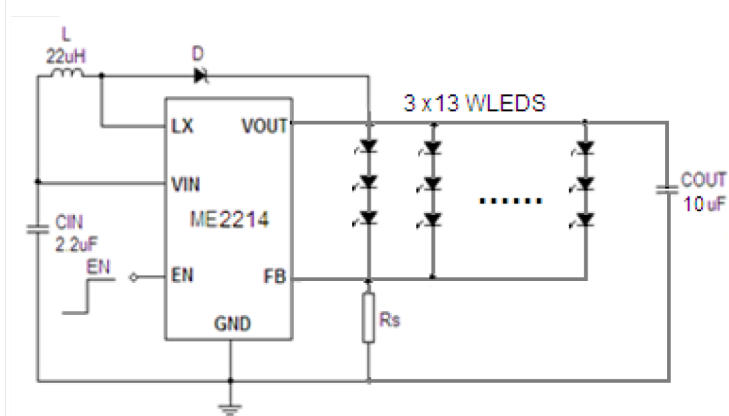
### Package

- 6-pin SOT23-6

### Typical Application circuit



$$I_{LED} = 20mA, \quad R_s = 10\Omega$$



$$I_{LED} = 260mA, \quad R_s = 0.77\Omega$$

**Suggesting** : The output ceramic capacitor of 1uF or 10uF is recommended for the ME2214 applications for driving 6 series WLEDs. The output ceramic capacitor of 10uF is recommended for the ME2214 applications for driving 3x13 WLEDs. For better voltage filtering, ceramic capacitors with low ESR are recommended.