AT5160

High Efficiency, Constant Current 40V White-LEDs Driver

Feature

- **Operating Voltage: 2.5V to 5.5V.**
- **High Operating Frequency: 1MHz**
- **High Output Voltage: Up to 40V(Typ.)**
- **Digital Dimming Control.**
- **Built-in Cycle-by Cycle Current-Limiting.**
- **Built-in Soft-Start Function.**
- **0.2V Low Reference Voltage**
- **Thermal Overload Protection**
- **TSOT-23-6 Package**

Application

- **GPS Navigation System**
- **Compact Back Light Module**
- **Constant Current Source**
- **LED Module**

Description

The AT5160 step-up converter drives white LEDs with a constant current to provide backlight in cell phones, PDAs, and other hand-held devices. It features allowing series connection of the white LEDs so that the LED currents are identical for uniform brightness. An enable input can be pulsed repeatedly to adjust LED's brightness. The fast 1.0MHz current-mode PWM control allows for smaller capacitor and inductor. Fault condition protection uses cycle-by-cycle current limiting to sense maximum inductor current, thermal protection and over-voltage protection. Also included soft-start eliminates inrush current during start-up. The 0.2V low reference voltage minimized the power loss across the current-setting resistor.

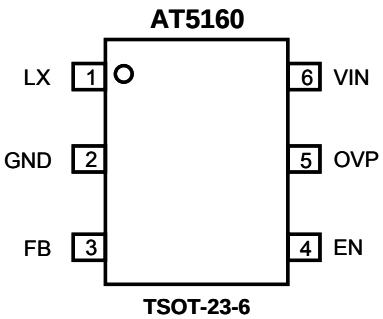
The AT5160 is available in TSOT-23-6 packages.

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
AT5160TP1U	5160x	-40°C to 85°C	TSOT-23-6

Note: TP: TSOT-23-6
1: Bonding Code
U: Tape & Reel

Pin Configuration



Typical Application Circuit

※ *Use the tantalum capacitor to eliminate inductor noise on output terminal when you want to control dimming function.*

