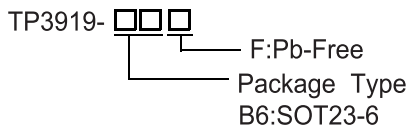


**High Performance, Large Constant Current Switching
Regulator For White LED Of Large Panel**

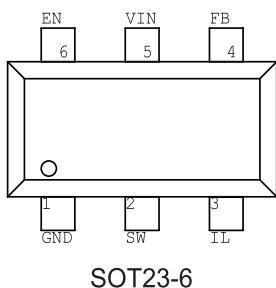
General Description

The TP3989 is a 600KHz PWM boost switching regulator designed for constant-current white LED driver applications. The TP3989 can drive a string of up to 7 white LEDs from a 2.8V supply or 45 white LEDs from a 5V supply in series, ensuring uniform brightness and eliminating several ballast resistors. The TP3989 implements a constant frequency 600KHz PWM control scheme. The high frequency PWM operation also saves board space by reducing external component sizes. To improve efficiency, the feedback voltage is set to 125mV, which reduces the power dissipation in the current setting resistor. Highly integration and internal compensation network minimizes as 5 external component counts. Optimized operation frequency can meet the requirement of small LC filters value and low operation current with high efficiency.

Ordering Information



Pin Configurations



Features

- High Efficiency:96%
- Large Switch current: 3A
- Low $R_{DS(ON)}$ of Switch mosfet : 70m Ω
- 600KHz Frequency PWM Operation
- Maximum Output Voltage up to 24V
- Operating Range :1.1V to 20V
- Wide Range Output Voltage:3.3V-24V
- Programmable LED Driver Current :10mA~1.2A
- Available in SOT23-6 Package
- Minimize the External Component
- RoHS Compliant and 100% Lead (PB) -Free

Applications

- WLED Black-light driver
- MID/Portable DVD
- Car Panel Backlight driver

Marking information

For marking information, contact our sales representative directly or through a TPmicro distributor located in your area.

Typical Application Circuit

