

### General Description

The TCS5109 is boost topology switching regulator for wide operating voltage applications. It provides built-in gate driver pin for driving external N-MOSFET. The non-inverting input of error amplifier connects to a 1.2V precision reference voltage. It has programmable switching frequency set by external resistor, and programmable inductor peak current limit connects a resistor from CS to GND. Current mode control and external compensation network make is easy and flexible to stabilize the system.

The TCS5109 is available in the small footprint SOP-8L(EP) package to fit in space-saving PCB layout for application fields.

### Features

- Start-up Voltage: 2.8V
- Wide Supply Voltage Operating Range: 5V to 24V
- Precision Feedback Reference Voltage: 1.2V ( $\pm 2\%$ )
- Shutdown Current:  $< 3\mu A$
- Programmable Switching Frequency: 100KHz~1000KHz
- Input Under Voltage Protection(UVP)
- Switching MOSFET Over Current Protection (OCP)
- Over Temperature Protection (OTP)
- Package: SOP-8L(EP)

### Applications

- Chargers
- LCD Displays
- Handheld Devices
- Portable Products
- Power Bank

### Typical Application Circuit

