

# Wide Input Range Step-Down Synchronous DC/DC Converter

## FEATURES

- P-MOS+N-MOS Switch Structure
- Wide Input Voltage: 4.5V to 30V
- Up to 2.75A Output Current Limit at 5V Output
- High Efficiency up to 93%@5V/2.4A
- Force PWM Operation
- 120kHz to 440kHz Adjustable Frequency
- Internal Compensation
- Output Line Drop Compensation
- Hiccup Output Short Current Protection
- $\pm 2\%$  Feedback Voltage Accuracy
- Integrated Soft Start
- Thermal Shutdown
- Duty Cycle up to 100%
- Frequency Jitter for EMI Consideration
- Low BOM Cost
- SOP8 Package

## GENERAL DESCRIPTION

TMI2282L is a wide input voltage, high efficiency active CC step-down DC/DC converter that operates in either CV (Constant Output Voltage) mode or CC (Constant Output Current) mode. TMI2282L provides up to typical 2.75A output current limit at 5V output with floating ISET pin. Switching frequency can be set by external resistor. Maximum 100% duty cycle could be obtained. TMI2282L internal integrate 75m $\Omega$  high side and 40m $\Omega$  low side power MOSFET.

Advanced production features include UVLO, Thermal Shutdown, Soft Start and input OVP.

## APPLICATIONS

- Car Charger/ Adaptor
- Rechargeable Portable Devices
- General-Purpose CC/CV Power Suppliers

## TYPICAL APPLICATION

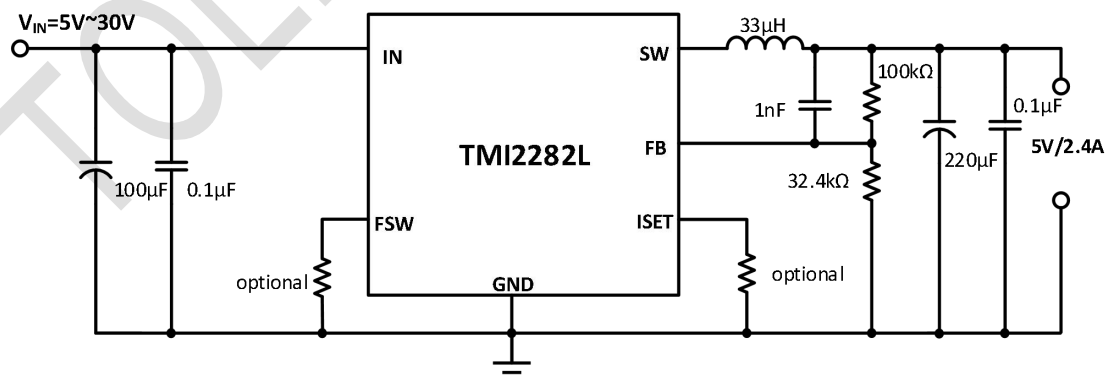


Figure 1. Basic Application Circuit