

CC/CV Mode Synchronous Step-Down Converter

DESCRIPTION

The EUP3276A is a synchronous, step-down constant on-time buck regulator capable of driving 5A continuous load current. The EUP3276A operates in either CC (Constant Current) mode or CV (Constant Voltage) mode with an input voltage range from 4.5V to 36V. The EUP3276A provides programmable cable compensation by adjusting external resistor divider. The EUP3276A provides excellent transient response with constant on-time control method while maintaining a nearly constant frequency of 150KHz.

Fault condition protection includes VIN under-voltage lockout, cycle-by-cycle current limiting, short-circuit protection, as well as thermal shutdown. Programmable soft-start minimizes the inrush supply current and the output overshoot at initial startup.

The EUP3276A is available in TQFN-23 package.

FEATURES

- Wide Input Voltage Range: 4.5V to 36V
- Up to 5A Output Current
- Excellent Line and Load Transient Responses
- Integrated 40mΩ N-Channel MOSFET for High Side
- Integrated 15mΩ N-Channel MOSFET for Low Side
- Fixed 150KHz Frequency
- CC/CV Mode Control
- Adjustable Soft-Start
- Programmable Cable Compensation
- Cycle-by-Cycle Current Limit
- Hiccup Short Circuit Protection
- Over-Temperature Protection
- Available in TQFN-23 Package
- RoHS Compliant and 100% Lead(Pb)- Free, Halogen-Free

APPLICATIONS

- Car Charger
- Portable Charger Application
- DC-DC Converter with Current Limit

Typical Application Circuit

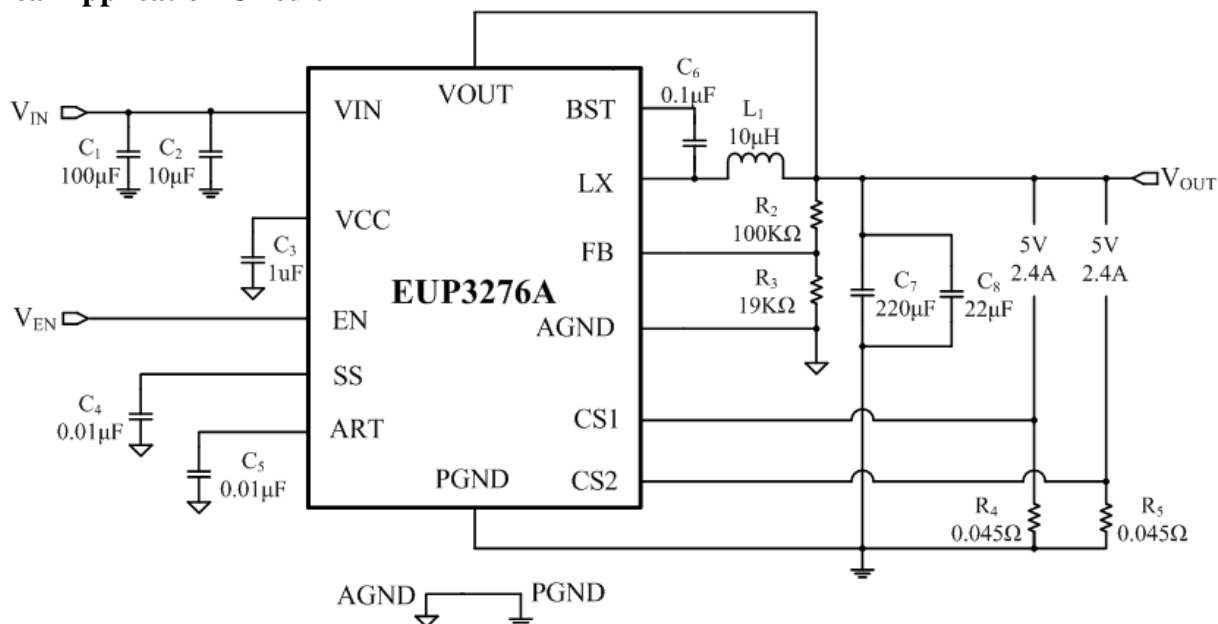


Figure 1. Application Circuit