36V Input, 3.1A output Step-Down Converter in ESOP-8

DESCRIPTION

The ETA2822 is a total solution IC specifically for high voltage USB charging applications. It includes a wide input range, high-efficiency, and high frequency DC-to-DC step-down switching regulator that is capable of delivering up to 3.1A of output current. The DC-DC in ETA2822 is a current mode converter with a fixed-frequency that is externally adjustable. There is also a cable resistance compensation feature that allows users to adjust the output voltage to compensate for the voltage drop due to cable resistance.

An OVP function protects the IC itself and its downstream system against input voltage surges. With this OVP function, the IC can stand off input voltage as high as 42V, making it an ideal solution for industrial applications such as smart power-meters as well as automotive applications. In automotive systems, power comes from the battery, with its voltage typically ranges between 9V and 24V. Including cold crank and double battery jump-starts, the minimum input voltage may be as low as 4V and the maximum up to 36V, This makes ETA2822 ideal for the automotive application. ETA2822 is housed in an ESOP8 package.

FEATURES

- **Wide Input Operating Range from 4V to 36V**
- **Standoff Input Voltage: 42V**
- **High Efficiency at 12V In 5V Out: Up to 91%:**
- **High Efficiency PFM mode at light load**
- **Capable of Delivering 3.1A output current**
- **Cable resistance compensation**
- **Adjustable Switching frequency**
- **Adjustable Output current limit**
- Current Mode control
- Logic Control Shutdown
- Thermal shutdown and UVLO

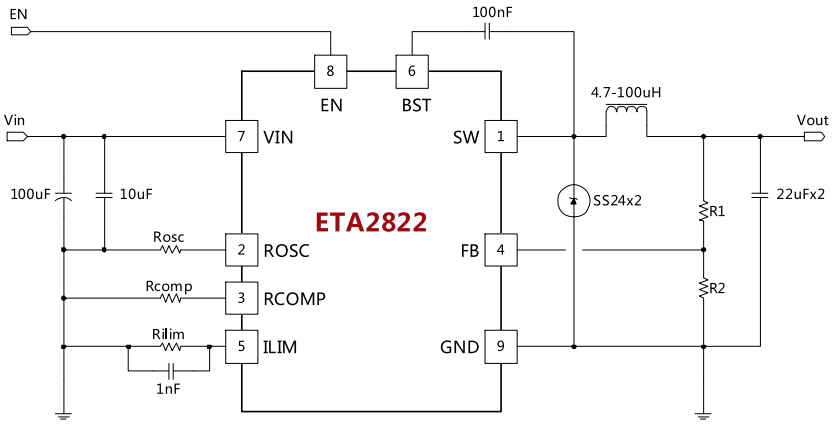
APPLICATIONS

- Car Charge ports
- Smart power-meter system
- General purpose with high voltage input

ORDERING INFORMATION

PART	PACKAGE	TOP MARK
ETA2822E8A	ESOP-8	ETA2822 YWW2L

TYPICAL APPLICATION



Vout = 0.8 x (R1+R2) / R2