

## 2.5A, 40V, Car Charger / Adaptor Step-Down Converter



### General Description

The FP6132 is a buck regulator with a built in internal power MOSFET. It achieves 2.5A continuous output current over a wide input supply range with excellent load and line regulation. Current mode operation provides fast transient response and eases loop stabilization. A wide switching frequency range allows efficiency and external component size to be optimized. The device includes under voltage lockout and thermal shutdown protection. The regulator only consumes 75 $\mu$ A supply current in shutdown mode. The FP6132 requires a minimum number of readily available external components to complete a 2.5A buck regulator solution.

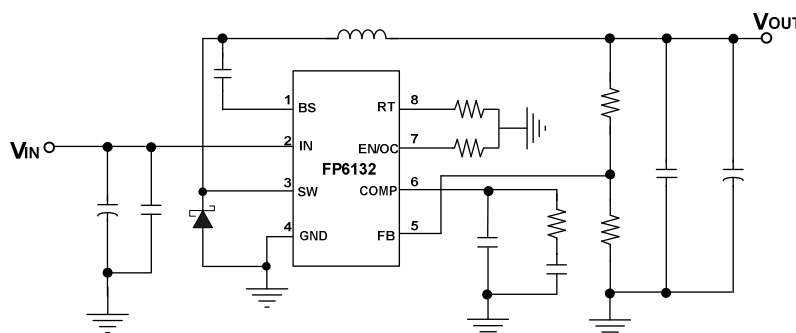
### Features

- 40V Input Voltage Surge
- 36V Steady State Operation
- Up to 2.5A Output Current
- Built-in Soft-Start
- 0.22 $\Omega$  Internal Power MOSFET Switch
- Up to 90% Efficiency
- 75 $\mu$ A Shutdown Mode Current
- Adjustable Switching Frequency using external Resistance setting
- Adjustable Over Current Protection using external Resistance setting.
- Thermal Shutdown
- Secondary Cycle-by-Cycle Over Current Protection
- Available SOP8 With Exposed PAD

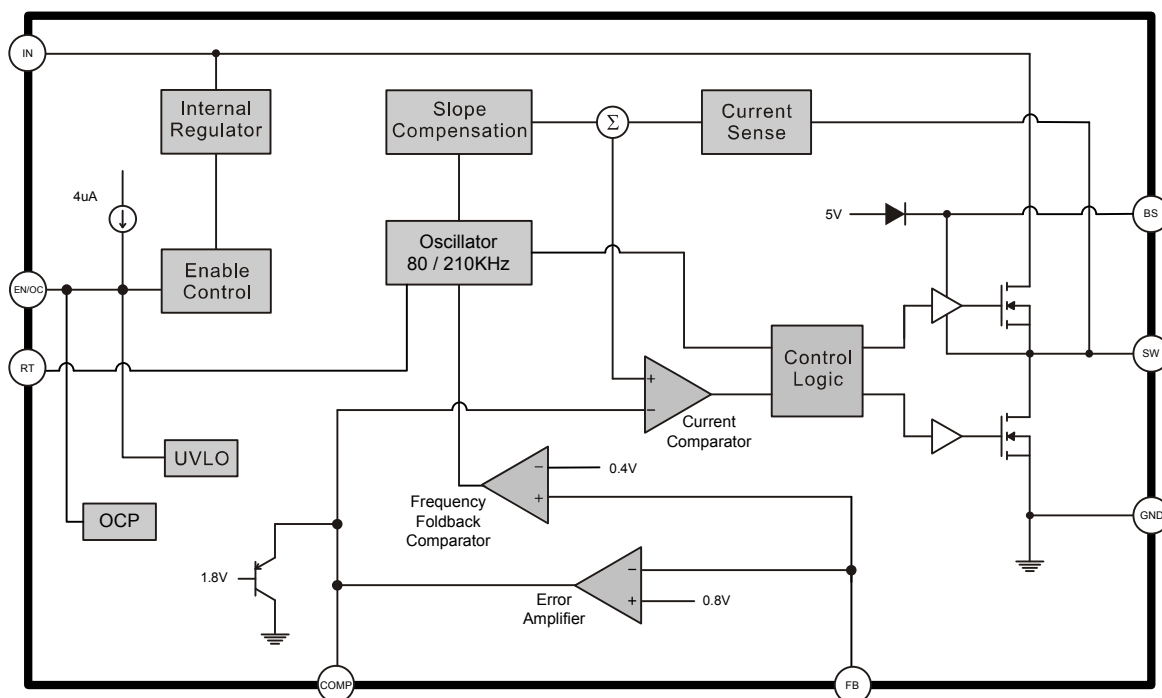
### Applications

- Car Charger/ Adaptor

### Typical Application Circuit

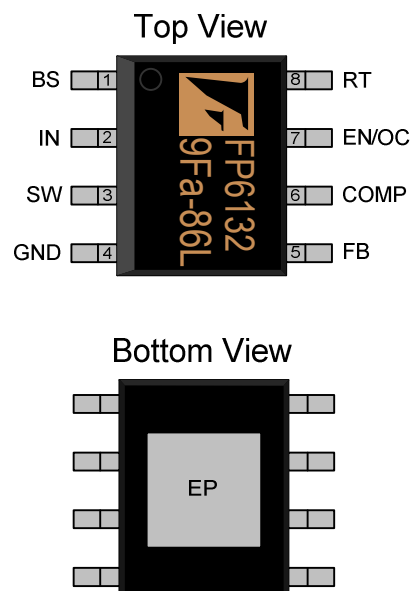


## Function Block Diagram



## Pin Descriptions

### SOP-8 (EP)



Name	No.	I/O	Description
BS	1	O	Bootstrap
IN	2	P	Supply Voltage
SW	3	O	Switch
GND	4	P	Ground
FB	5	I	Feedback
COMP	6	O	Compensation
EN/OC	7	I	Enable/UVLO; Resistance for OC
RT	8	I	Resistance for OSC Frequency
EP	9	P	Exposed PAD – Must connect to Ground