

## Wide Range Synchronous Buck Controller

### Description

The KF8439 is a synchronous step down regulator from a high voltage input supply. Operating with an input voltage range from 8V to 35V, the

KF8439 achieves 2.8A continuous output current with excellent load and line regulation. The switching frequency is programmable from 130 kHz to 500 kHz and the synchronous architecture provides for highly efficient designs. Current mode operation provides fast transient response and eases loop stabilization.

The KF8439 requires a minimum number of readily available standard external components. Other features include cable compensation, programmable current limit and thermal shutdown.

The KF8439 converters are available in the industry standard SOP-8L packages.

### Feature

- Wide Input Voltage Range: 8V to 35V
- Up to 93% Efficiency
- Programmable Switching Frequency up to up to 500kHz
- No Loop Compensation Required
- Programmable current limit
- Thermal Shutdown
- Available in SOP-8L Package

### Application

- Car Charger / Adaptor
- Pre-Regulator for Linear Regulators
- Distributed Power Systems
- Battery Charger

### Pin Assignment and Description

TOP VIEW		PIN	NAME	DESCRIPTION
8	7	1	FB	Feedback
6	5	2	RT	Frequency Setting
		3	ILIM	Current Limit
		4	VIN	Input Supply Voltage
1	2	5, 6	SW	Switch Node
3	4	7, 8	GND	Ground

### Typical Application Circuit

