

Ultra-small package 1 MHz frequency PWM mode DC / DC boost controller

Description

The KF9109 is a current mode boost DC-DC converter. Its PWM circuitry with built-in 0.2Ω power MOSFET make this regulator highly power efficient. The internal compensation network also minimizes as much as 6 external component counts. The non-inverting input of error amplifier connects to a 0.6V precision reference voltage and internal soft-start function can reduce the inrush current.

The KF9109 is available in the SOT23-6L package and provides space-saving PCB for the application fields.

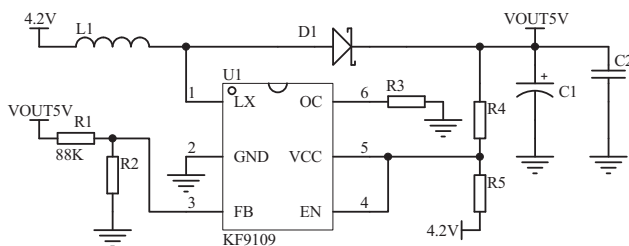
Features

- Adjustable Output up to 12V
- Internal Fixed PWM frequency: 1.0MHz
- Precision Feedback Reference Voltage: 0.6V (±2%)
- Internal 0.2Ω, 2A, 16V Power MOSFET
- Shutdown Current: 0.1μA
- Over Temperature Protection
- Adjustable Over Current Protection: 0.5A ~ 2.5A
- Package: SOT23-6L

Applications

- Chargers
- LCD Displays
- Digital Cameras
- Handheld Devices
- Portable Products

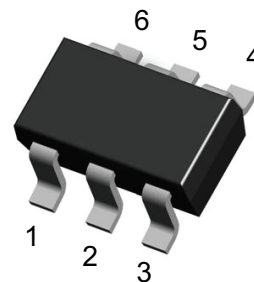
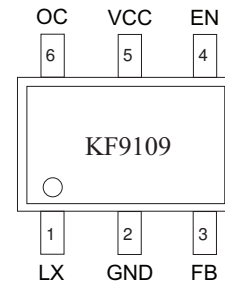
Typical Application Circuit



$$I_{OCP} = \frac{48000}{R3}$$

$$V_{OUT} = 0.6V \left(1 + \frac{R1}{R2} \right)$$

Pin Descriptions



SOT23-6L

Name	No.	I / O	Description
LX	1	O	Power Switch Output
GND	2	P	IC Ground
FB	3	I	Error Amplifier Inverting Input
EN	4	I	Enable Control (Active High)
V _{CC}	5	P	IC Power Supply
OC	6	I	Adjustable Current Limit (Floating Available)