

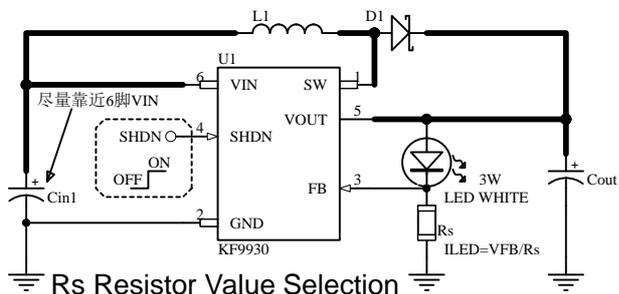
## 3W High Power White LED

### General Description:

The KF9930 is a set-up DC-DC converter that delivers a regulated output current. The device switches at a 1MHz constant frequency, allowing for the use of small value external inductor and ceramic capacitors.

The KF9930 is targeted to be used for driving loads up to 1A from a two-cell alkaline battery. The LED current can be programmed by the external current sense resistor,  $R_s$ , connected between the feedback pin (FB) and ground. A low 95mV feedback voltage reduces the power loss in the  $R_s$  for better efficiency. During the shutdown mode, the feedback resistor  $R_s$  and the load are completely disconnected and the current consumption is reduced to less than 1uA.

### Typical Application:

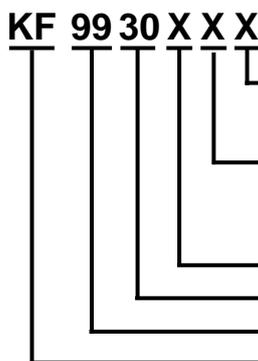


TYP. (mΩ)	I <sub>LED</sub> (mA)
127	750
270	351.8

CS05FTGR127N (0805, 1%, TCR300, 127 mΩ)

CS05FTGR270 (0805, 1%, TCR300, 270 mΩ)

### Selection Guide



Environmental  
e.g.: G-Lead free

Package:  
e.g.: M6-SOT23-6  
P5-SOT89-5

Function

Product Type

Product Series

Product labeling

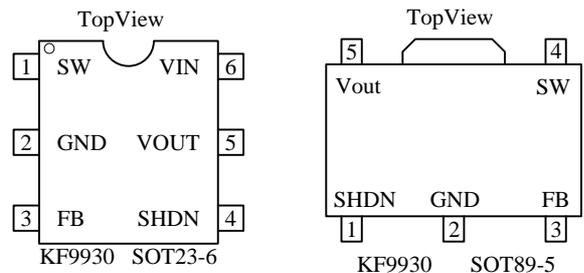
### Features:

- LED Power Efficiency: up to 90%
- Current Accuracy:  $\pm 10\%$
- Low Start-Up Voltage: 0.9V ( $I_{LED} = 270\text{mA}$ )
- Low Hold Voltage: 0.75V ( $I_{LED} = 200\text{mA}$ )
- 1MHz Switching Frequency
- Uses small, Low Profile External Components
- Low RDS(ON) : 100mΩ (TYP.)
- Open LED Protection
- Over Temperature Protection
- Packages: SOT-23-6, SOT89-5
- Pb-Free Package

### Applications:

- White LED Torch (Flashlight)
- White LED Camera Flash
- DSC (Digital Still Camera) Flash
- Cellular Camera Phone Flash
- PDA Camera Flash
- Camcorder Torch (Flashlight) Lamp

### Pin Configuration & Marking Information:



### Pin information:

Pin Number		Name	Function
SOT23-6	SOT89-5		
1	4	SW	Switch
2	2	GND	Ground
3	3	FB	Feedback
4	1	SHDN	Shut Down
5	5	V <sub>OUT</sub>	Output
6	/	V <sub>IN</sub>	Input

### Precautions:

KF9930 is only applicable to two battery-driven 1W or 3W white LED, KF9930 A a battery can drive 1W or 3W white LED.