

## 太阳能草坪灯控制器 ANA618

### 产品概况:

太阳能草坪灯主要利用太阳能电池的能源来进行工作,当白天太阳光照射在太阳能电池上,把光能转变成电能存贮在蓄电池中,再由蓄电池在晚间为草坪灯的LED(发光二极管)提供电源。其优点主要为安全、节能、方便、环保等。

太阳能草坪灯控制器 ANA618 是我公司根据太阳能草坪灯工作特点专门研制的,采用 TO-94 封装,外围元器件极少,便于生产;该控制器具有高转换效率:85~90%(典型值),可以减少太阳能电池板的功率要求;输出电流可调节;电流一致性好等特点。

### 特点:

1. 外围元器件极少,只需一个电感,便于生产
2. 高效率:85~90%(典型值),可充分利用太阳能电池通过电感调节电流,简单方便,电流稳定,一致性好输入电流不受 LED 开启电压的影响
3. 低使能电压,确保灯具在外界光线足够暗的时候才开启
4. 使能控制具有施密特性能,保证灯具亮暗转换时的稳定性

### 应用范围:

1. 充电电池:单节充电电池驱动
2. 适用LED范围:各种颜色的LED

## Product Overview

The main advantage of this solar lawn device is that it uses green and clean solar energy to function. In the daytime, as sunlight falls on solar cells, the light energy is converted into electrical energy and stored in batteries. In the evening, the illumination of the lawn is provided by the LED (light emitting diode) which is powered by the charged battery.

ANA618's main advantage is that it is safe, energy-saving, convenient and environmentally friendly. The Solar Lawn Controller ANA618 is developed based on requirements of a solar-powered lawn lamp. It is specially designed, using the TO-94 package with the need for very few external components, thus enhancing the ease of production. The controller has a high conversion efficiency of between 85 to 90% (typical). Hence, this efficiency reduces the power requirements of a solar panel. Moreover, the output current can be adjusted and the current consistency is good.

## Features

1. Minimal external components, use of only one inductor and ease of production
2. High efficiency: 85 to 90% (typical), can take advantage of solar energy from the sun. The current is adjustable using the inductor, it is simple and convenient, with good current stability & consistency. The voltage of the input electricity is not affected by the turning on of the LED.
3. Low activating voltage, ensuring that the LED will only turn on when the external environment is sufficiently dark.
4. LED activation control possesses the performance of a Schmitt trigger, to ensure the stability of the LED lamp output when switching between bright and dark environments.

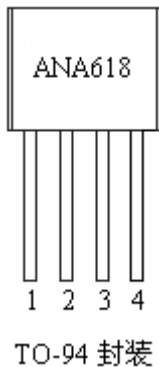
## Applications

1. Rechargeable battery: Single Rechargeable battery power
  2. Applicable LED: Various colors of LEDs
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封装形式及管脚说明

## Package and Pin Description

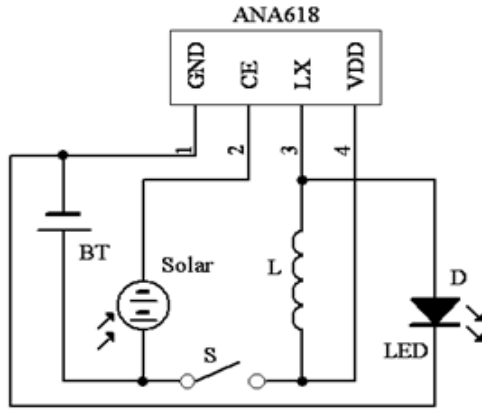
TOP VIEW



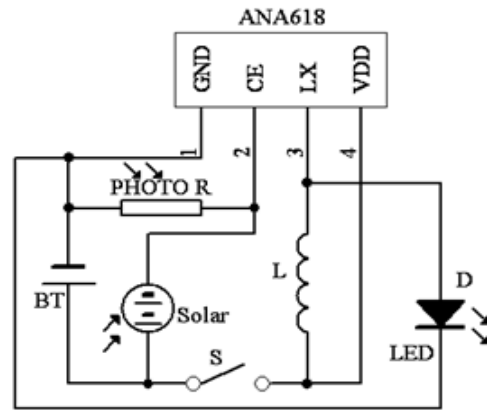
管脚号 Pin Number	管脚名称 Pin Name	管脚功能 Pin Function
1	GND	接地管脚 Ground Pin
2	CE	使能端 Enable
3	LX	开关引脚 Switch Pin
4	VDD	输入电源 Input Power

应用电路

**Circuit of Typical Application**



使能由太阳能板控制  
Using Solar Panel for Control



使能由光敏电阻控制  
Using Photo Resistor for Control

元器件参数

**Components Parameters/Specifications**

元器件 Component	规格要求 Specifications	型号 Model
LED 驱动器 LED Driver		ANA618
电感 Inductor	内阻<1.2 欧 Resistance <1.2ohm	色环电感 Color Ring Inductance
光敏电阻 Photo-Resistor	亮阻: 5-10K暗阻: >10M Bright: 5-10K Dark: >10M (ohms)	

### 电流调节参考

通过改变电感值可以改变输入电流的大小，电感与输入电流关系可参考下表：

### **Current Regulation Reference**

By varying the inductance value, the size of the input current can be changed. The relation between the inductor and the input current are described in the following table:

电感量 (Inductance)	输入电流（输入电压1.25V 驱动白光LED） Input Current (Input Voltage: 1.25V, Drives White LED)
100uH	7-9mA
82uH	9-11mA
47uH	15-18mA
33uH	22-26mA

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