

Large current 5A constant current LED driver lithium-ion battery power supply module 5A constant voltage constant current module

When you use this product, the module inputs and outputs to the ground and do not co-together, this will cause the board power current sense resistor is bypassed, so that the module can not adjust the output current size, the case then load easy to burn power chip module.

This module is easy to use, powerful! ! !

A module has three major features to meet most of your occasions! ! !

Module Description:

1. high power, high efficiency, 5A, low ripple;
2. triple:
 - (1) Use as a normal blood pressure modules with overcurrent protection capability;
 - (2) as the various voltage lithium batteries, batteries, nickel-cadmium nickel-metal hydride batteries (battery) charger for solar panels, wind turbines and other occasions;
 - (3) is used as a high-power LED constant current drive module;
3. With constant pressure and constant current modes, there are light indicates which mode is currently in module;
4. When used as a lithium battery charger, you can set the float voltage and the charge current size, there is light indicates is being charged or has been filled;
5. Has the current limit protection, output short circuit even if it will not burn module.
6. This module uses machine placement, reflow soldering, and each module shipments have been two hours before the aging tests to ensure high reliability.

First, the module parameters

Input: IN + input positive, IN- input negative

Output way: OUT + output positive, OUT- output negative

Input voltage: 4-38V

Output voltage: 1.25-36V continuously adjustable

Output current: adjustable, maximum 5A

Output Power: 75W maximum

Working temperature: -40 to + 85 degrees

Operating frequency: 180KHz

Conversion efficiency: up to 96%

Short circuit protection: Yes (limit current 8A)

Overtemperature protection: (automatically shut off the output after overtemperature)

Input reverse polarity protection: None, (if necessary, please enter the string into the high current diode)

Installation: four 3mm screws

Module dimensions: length 51mm width 26mm height 15mm

Weight: 23g

Second, the application

1. Use as a normal blood pressure modules with overcurrent protection capability

Instructions:

(1) constant pressure regulator potentiometer, the output voltage reaches the voltage value you want

(2) 10A current with a multimeter measuring the output short circuit current file (directly to the two leads to the output can), while adjusting the constant current potentiometer allows the output current reaches a predetermined value of overcurrent protection. (Such as the current value of the

multimeter displays 4A, then you can use the module to the maximum current 4A, 4A current to constant voltage constant current when the red light is on, otherwise the light off)

Note: When used in this state, since the output of 0.05 ohm current sense resistor, there will be 0 ~ 0.3V voltage drop after connected to the load, this is normal! This drop is not being pulled down your load, but down-sampling resistor.

2. Use as a battery charger

Module without constant function can not be used to charge the battery, since the end of the battery and charger power consumption big difference between charging current is too large, resulting in damage to the battery, so when you want to start the battery using a constant current charging, when charging to a certain extent automatically switches back to constant voltage charging.

Instructions:

- (1) Make sure you need to recharge battery float voltage and charging current; (if lithium argument is 3.7V / 2200mAh, then float voltage is 4.2V, the maximum charging current 1C, namely 2200mA)
 - (2) under no-load conditions, the multimeter to measure the output voltage of the constant voltage potentiometer to adjust the output voltage reaches the float voltage; (if rechargeable lithium battery to 3.7V, the output voltage can be adjusted to 4.2V)
 - (3) 10A current with a multimeter measuring the output short circuit current file (directly to the two leads to the output can), while adjusting the constant current potentiometer allows the output current reaches a predetermined charge current value;
 - (4) Charging turn lamp current default factory setting is 0.1 times the charging current; (the battery during charging current is gradually reduced, gradually converted to constant voltage charging by the constant current charging, if the charging current setting is 1A, then when Charge current is less than 0.1A when the blue light off, green light is on, then the battery is fully charged)
 - (5) connected to the battery charge.
- (1,2,3,4 step is: input termination power, output unloaded battery is not connected)

3. Use a high-power LED constant current driver module

- (1) determine the work you need to drive the LED current and the maximum operating voltage;
 - (2) No-load condition, the multimeter to measure the output voltage of the constant voltage potentiometer to adjust the output voltage reaches the LED maximum working voltage;
 - (3) 10A current with a multimeter measuring the output short-circuit current gear while adjusting the constant current potentiometer allows the output current reaches a predetermined LED working current;
 - (4) connected to the LED, the test machine.
- (Steps 1 through 3 are: input connected to the power supply, the output load is not connected LED.)

Note: This module is more than 3A, 35W in use, to enhance heat dissipation! ! !