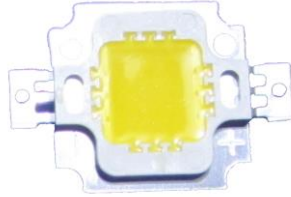


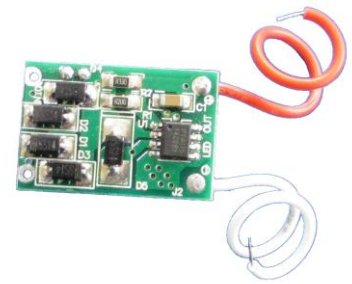
# 10W LED and Driver



**Cool White LED**



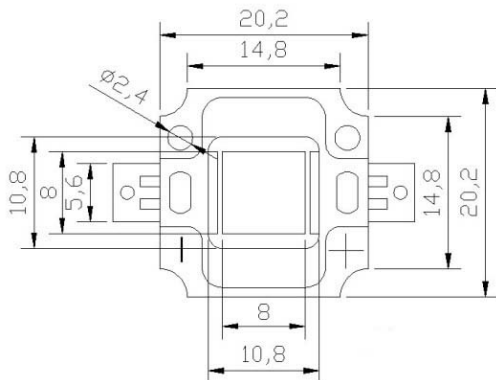
**Warm White LED**



**10W LED Driver**

## LED Specifications:

- Cool White Colour Temperature 5500-7000K
- Warm White Colour Temperature 3500-5500K
- Forward Voltage 9.6-11V max.
- Forward Current 900mA max
- Operating Temperature 70degC max!! LED must be mounted on a heatsink with at least two screws and thermal grease to stabilise operating temperature below 70degC!!
- Positive pin marked by + symbol in bottom right corner
- LED Dimensions 20mm x 20mm (approx.) standard 10W LED footprint



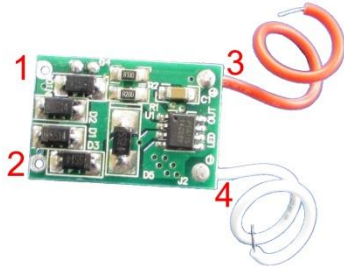
## Driver Specifications:

- Suited for powering a single 10W LED, or multiple 1W LEDs connected 3-series and 3-parallel
- Input Voltage 12-24VDC or 9-16VAC
- Output Voltage 9-12VDC
- Output Constant Current approx 900mA
- Can remove 0R220 current sense resistor to power a single 1W LED
- Can be configured for adjustable dimming

# LED Driver Board

The driver board delivers a constant current of approximately 900mA to the connected LED array, independent of supply voltage. It utilises an under-voltage lockout feature with a threshold of approximately 6 Volts. The driver can run a single LED or an array of LEDs and more LEDs in series will require a suitably higher input voltage. Consult the PT4115 constant current LED controller datasheet for more information.

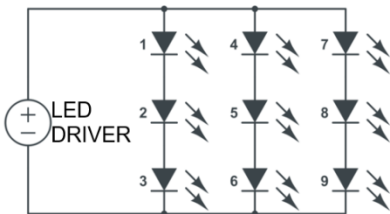
## Connecting a single 10W LED



- 1 = Power In
- 2 = Power In
- 3 = LED + / Anode
- 4 = LED - / Cathode

- Connect input power supply to connections 1 & 2. It doesn't matter which one is positive or negative, either way will work the same
- Connect LED Anode / + to connection 3 (the red wire)
- Connect LED Cathode / - to connection 4 (the white wire)

## Connecting nine 1W LED's



1Watt LED

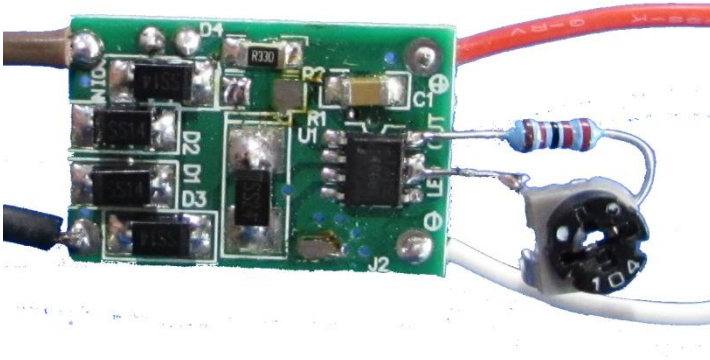
- Nine 1W LEDs can be connected in the 3-series/3-parallel arrangement shown above to spread out the light source into whatever shape you need

## Remove R1 0R220 for a single 1W LED (approx. 300mA current limit)



- Remove R1 0R220 for powering a single string of series 1W LEDs (300mA)
- Change the combination of values of R1 & R2 to obtain any other desired current limit. See the PT4115 controller data sheet for more details.

## Adjustable Dimming



- Connect a 22k resistor and 100k pot between pins 7 & 8 of the controller IC for adjustable dimming. You may have to experiment with these values to get the desired dimming range but these values will be close.