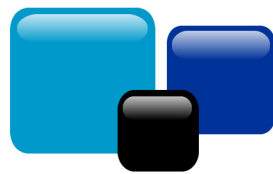


BM015 High Beam Dual White LED Module

Super Bright White Ceramic LEDs with MOSFET drivers



hardware made easy

Solutions Cubed

designservices@solutions-cubed.com

phone – 530.891.8045

**256 East First Street
Chico, CA 95928**

Contact Solutions Cubed, LLC for your custom designs:

Solutions Cubed is an innovative electronic design firm. We have created successful designs for a myriad of industries including mass produced consumer products, deep-sea robotic components, and encrypted encoders for the banking industry. We love meeting new customers and are interested in hearing about your design needs.

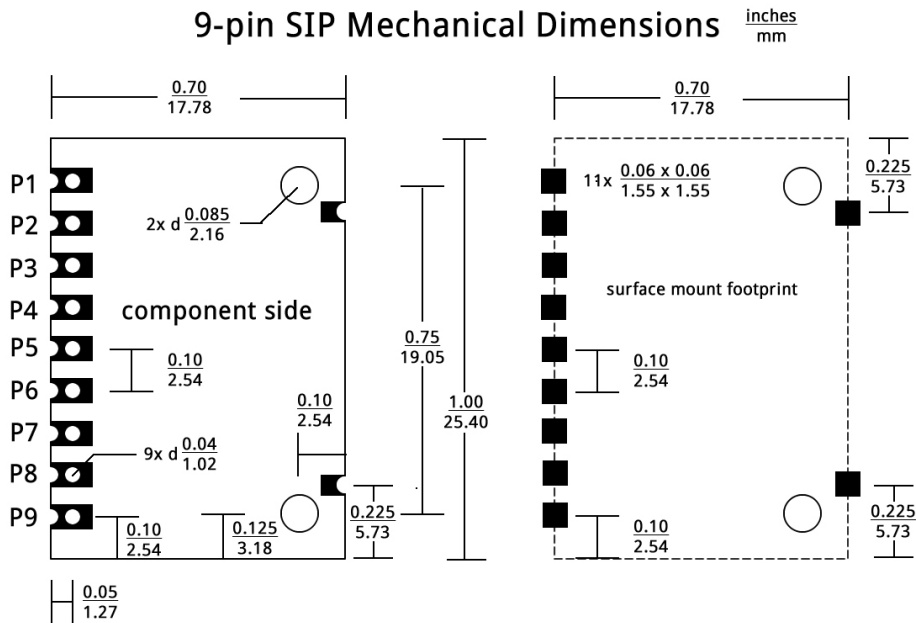
Product Description:

This brilliant white dual LED module can be used to generate hundreds super bright lighting in a small package. The module comes with MOSFET switches used to turn on each LED. Pulse-width modulating the MOSFETs can allow you to adjust brightness.

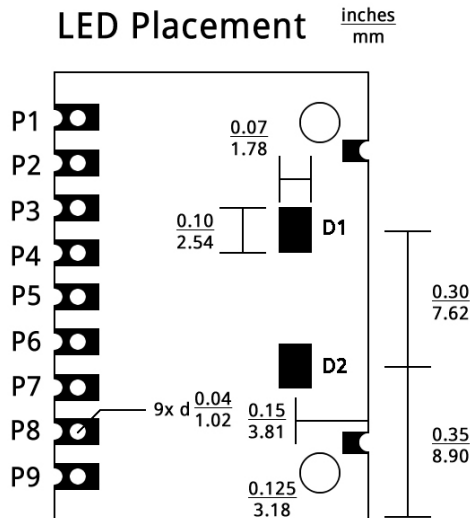
- 200mA per LED drive current (max)
- MOSFETs for driving LEDs with i/o pins
- 130° viewing angle
- Color Temperature 5700K (4500K ~ 7000K)
- Bright like the sun!

Dimensions:

9-pin SIP Mechanical Dimensions



LED Placement



Specifications:

Characteristic	Min	Typ	Max	Unit	Notes
VIN Operating voltage		5		V	VIN pins
Operating current	0		1000	mA	
Vforward LED	2.65		3.55	V	10Ω 1/2W resistor in series with LED and MOSFET
Operating temperature	-40		+110	°C	

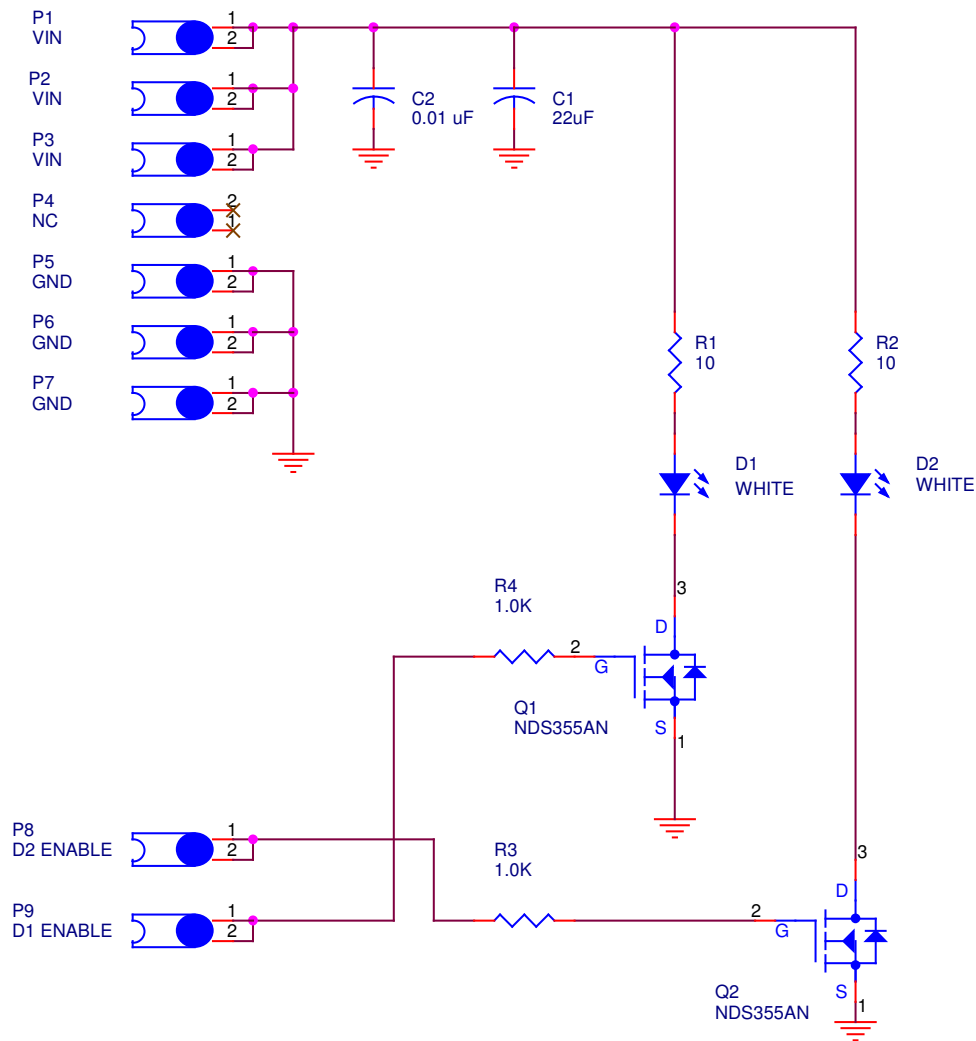
Pin Functions and Notes

#	Name	Maximum Voltage	Notes
1	VIN	5V	Tied to anode of all LEDs
2	VIN	5V	Tied to anode of all LEDs
3	VIN	5V	Tied to anode of all LEDs
4	NC	-	Not connected
5	GND	0V	Common ground
6	GND	0V	Common ground
7	GND	0V	Common ground
8	D2 ENABLE	5V	Connected to gate of N-channel MOSFET through 1KΩ resistor. 5V turns on LED.
9	D1 ENABLE	5V	Connected to gate of N-channel MOSFET through 1KΩ resistor (note: on rev 1 PCB this pin is labeled as "BLUE" on silk-screen. 5V turns on LED.

User Notes/Tips:

1. The D1 ENABLE pin is labeled "D2" on the bottom silk-screen of the REV1 PCB. Follow pin-out in this document. Likewise, the D2 ENABLE pin is labeled "D1" on the rev1 PCB.
2. These high intensity LEDs are very bright. You should not look directly at them. When viewing the LED it is worthwhile to cover it with frosted glass or a similar material.

Schematics:



Application Schematics:

WHITE LED PWM CONTROL

BASIC CONNECTIONS

