

LM7088A/BRG Series - 0.70 inch 8x8 Dot Matrix LED Display



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



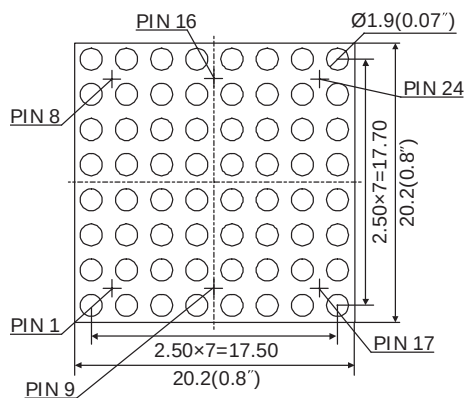
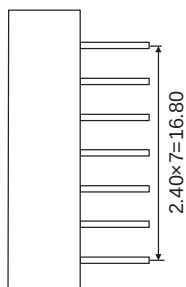
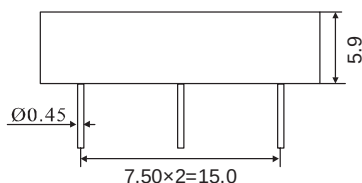
Features

- 17.80mm (0.70inch) digit high
- Dot size: Diameter 1.90mm
- Pitch: 2.54mm
- Wide viewing angle
- Emitting colors: red-green
- I.C. compatible
- Low power consumption
- White segment
- RoHS compliant

Available options

- Alternative emitting luminosity:
Standard or high brightness version
- Alternative emitted color
- Alternative segment color
- Alternative font
- Common Cathode is available
- Cropped terminal pins

Package Dimensions



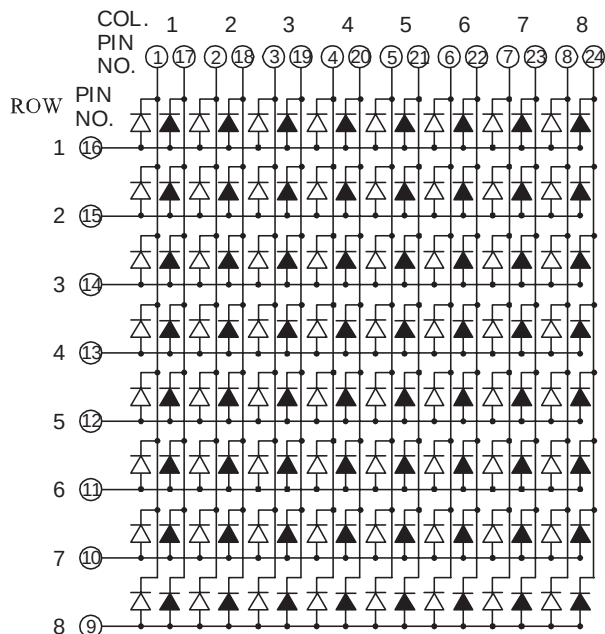
COL.	1	2	3	4	5	6	7	8
ROW 1	○	○	○	○	○	○	○	○
2	○	○	○	○	○	○	○	○
3	○	○	○	○	○	○	○	○
4	○	○	○	○	○	○	○	○
5	○	○	○	○	○	○	○	○
6	○	○	○	○	○	○	○	○
7	○	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○	○

Notes:

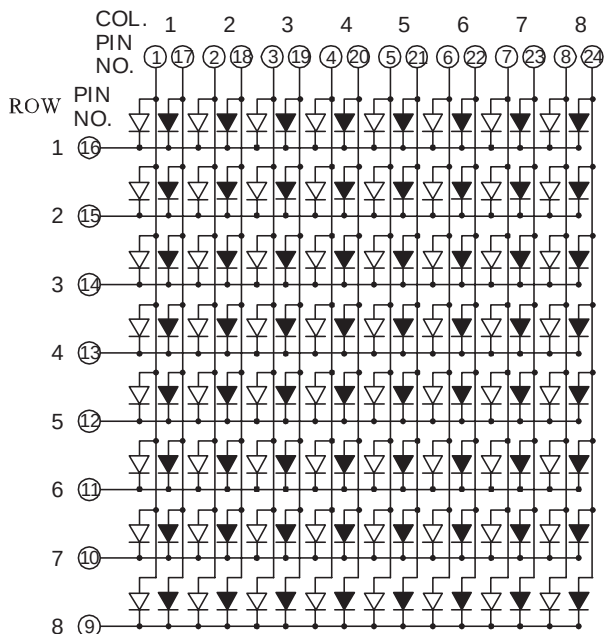
1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25\text{mm}$ (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

Internal Circuit Diagram

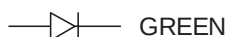
LM7057ARG (Common Cathode Row)



LM7057BRG (Common Anode Row)



RED



GREEN

Selection Guide

0.70 inch 8x8 Red-Green LED dot matrix module, Matrix Height: 20.20mm(0.70 inch), External Dimensions: 20.20x20.20x5.90mm (L x W x H)

Description	Part No.		Chip			Iv(mcd)@20mA	
	Common Cathode Row	Common Anode Row	Material	Color	W LD (nm)	One Dot	
						Min.	Typ.
Standard Brightness	LM7088ARG	LM7088BRG	GaAlAs	Super Red	640	8	10
			GaP	Green	568	7	9
Ultra-High Brightness	LM7088AURUG	LM7088BURUG	AlGaInP	Ultra Red	640	30	45
			AlGaInP	Ultra Green	573	30	45

Electrical Characteristics & Absolute Maximum Ratings

Color		Electrical Characteristics ^[1]			Absolute Maximum Ratings ^[1]		
		V _F @ I _F =20mA ^[2]		Reverse Current VR=5V	Power Dissipation	DC Forward Current	Peak Forward Current ^[3]
		Typ.	Max.				
Super Red	Per Dot	1.8	2.2	30	60	25	100
Hi-Red	Per Dot	1.8	2.2	30	60	25	100
Orange	Per Dot	2.1	2.5	30	80	30	100
Yellow	Per Dot	2.1	2.5	30	80	30	100
Green	Per Dot	2.2	2.5	30	80	30	100
Ultra Red	Per Dot	1.9	2.6	30	60	30	100
Ultra Orange	Per Dot	2.0	2.6	30	65	30	100
Ultra Amber	Per Dot	2.0	2.6	30	65	30	100
Ultra Yellow	Per Dot	2.0	2.6	30	65	30	100
Ultra Green	Per Dot	2.1	2.6	30	75	30	100
Pure Green	Per Dot	3.5	4.0	30	110	30	100
Ultra Blue	Per Dot	3.5	4.0	30	120	30	100
Ultra White	Per Dot	3.5	4.0	30	120	30	100
Unit:	\	V	V	uA	mW	mA	mA

Notes:

1. At Ta = 25 °C.
2. Forward voltage at forward current = 20mA.
3. Peak forward current at 1/10 Duty Cycle, 0.1ms Pulse.