LM12088A/B Series – 1.20 inch 8x8 Dot Matrix LED Display

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

RoHS

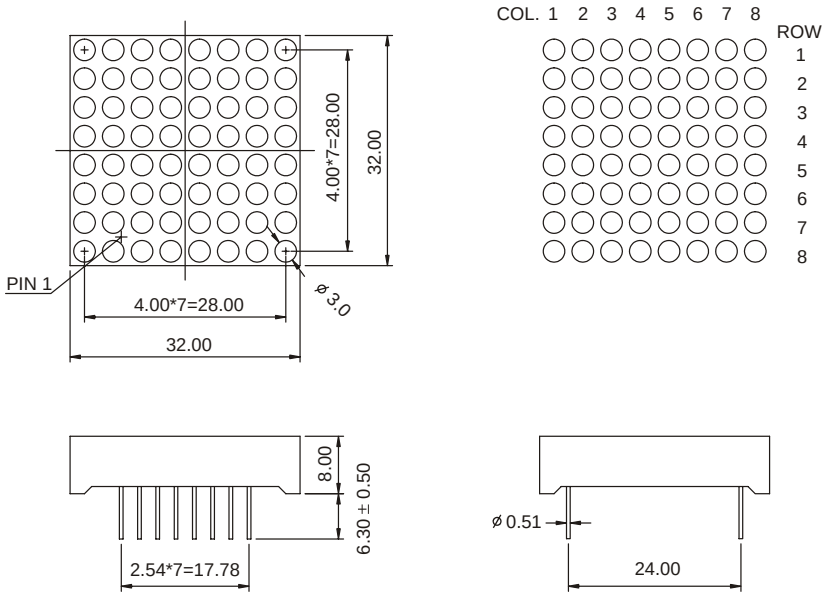
Features

- 32.00mm (1.20inch) digit high
- Dot size: Diameter 1.90mm
- Pitch: 2.54mm
- Wide viewing angle
- Range of emitted colors
- 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

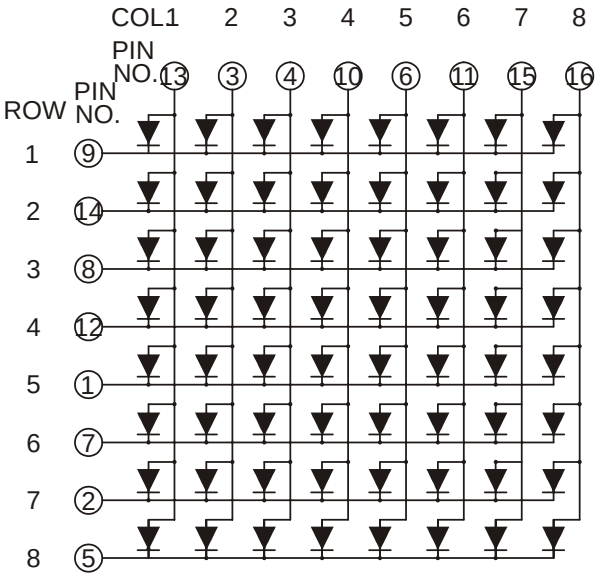


Notes:

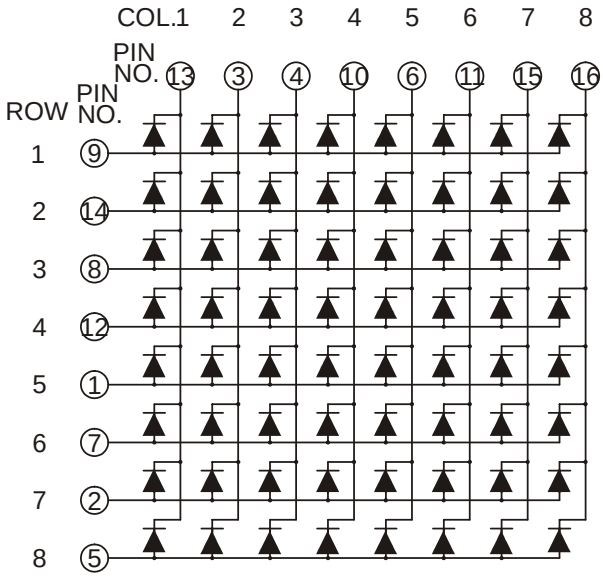
1. All dimensions are in millimeters (inches), Tolerance is ± 0.25mm (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

Internal Circuit Diagram

LM12088A (Common Cathode Row)



LM12088B (Common Anode Row)



Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM12088AR	LM12088BR	GaAlAs	Super Red	640	8	10
LM12088AD	LM12088BD	GaAlAs	Hi-Red	640	18	25
LM12088AO	LM12088BO	GaAsP	Orange	625	7	9
LM12088AY	LM12088BY	GaAsP	Yellow	588	8	10
LM12088AG	LM12088BG	GaP	Green	568	7	9
LM12088AUR	LM12088BUR	AlGaInP	Ultra Red	640	30	45
LM12088AUO	LM12088BUO	AlGaInP	Ultra Orange	625	45	60
LM12088AUA	LM12088BUA	AlGaInP	Ultra Amber	65	30	45
LM12088AUY	LM12088BUY	AlGaInP	Ultra Yellow	595	30	45
LM12088AUG	LM12088BUG	AlGaInP	Ultra Green	573	30	45
LM12088APG	LM12088BPG	InGaN	Pure Green	525	120	300
LM12088AUB	LM12088BUB	InGaN	Ultra Blue	470	30	45
LM12088AUW	LM12088BUW	InGaN	Ultra White	\	100	120
Unit:	\	\	\	nm	mcd	mcd

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.