

## LM19088A/B Series – 1.90 inch 8x8 Dot Matrix LED Display



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES



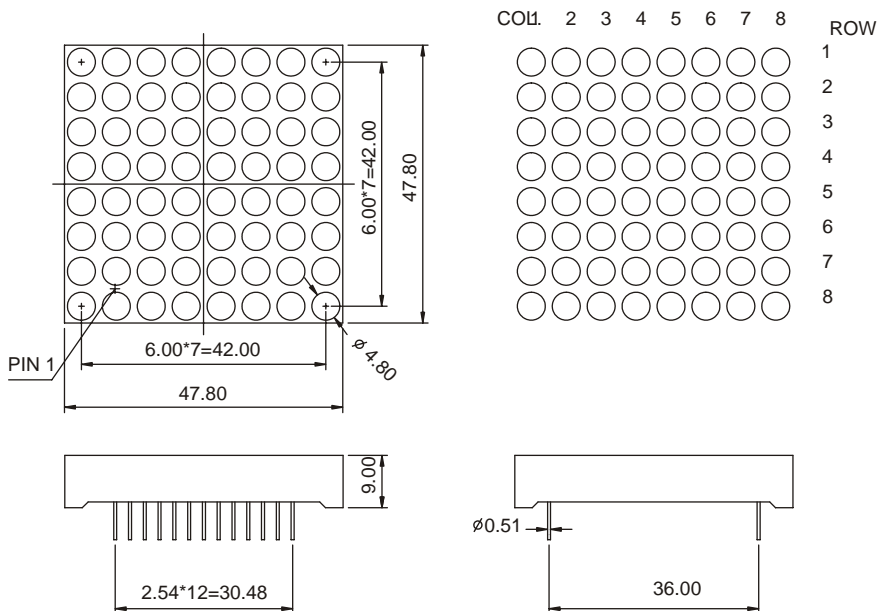
### Features

- 47.80 mm (1.90 inch) matrix height
- Dot size: Diameter 4.80 mm
- Pitch: 6.00 mm
- Wide viewing angle
- Range of emitted colors
- I.C. compatible
- Low power consumption
- White dot, grey or black face
- RoHS compliant

### Available options

- Alternative emitting luminosity:  
Standard or high brightness version
- Alternative emitted color
- Alternative dot color
- Alternative face color
- Both CA or CC versions are available
- Cropped terminal pins

### Package Dimensions

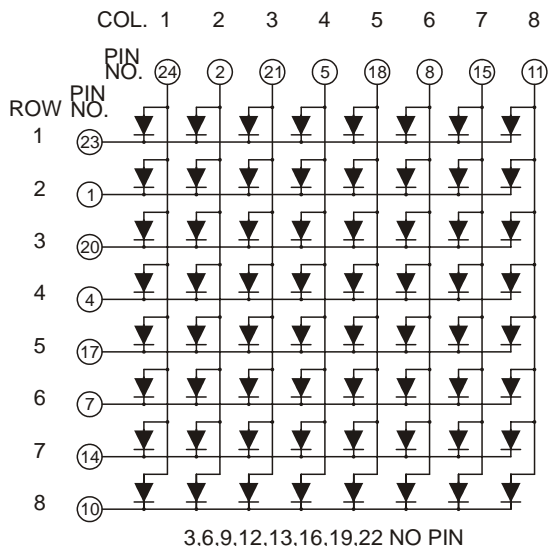


#### Notes:

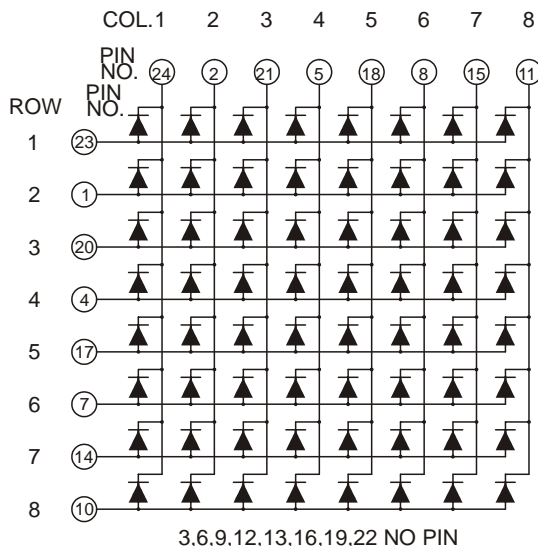
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25\text{mm}$  (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

### Internal Circuit Diagram

**LM19088A (Common Cathode Row)**



**LM19088B (Common Anode Row)**



### Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM19088AR	LM19088BR	GaAlAs	Super Red	640	8	10
LM19088AD	LM19088BD	GaAlAs	Hi-Red	640	18	25
LM19088AO	LM19088BO	GaAsP	Orange	625	7	9
LM19088AY	LM19088BY	GaAsP	Yellow	588	8	10
LM19088AG	LM19088BG	GaP	Green	568	7	9
LM19088AUR	LM19088BUR	AlGaInP	Ultra Red	640	30	45
LM19088AUO	LM19088BUO	AlGaInP	Ultra Orange	625	45	60
LM19088AUA	LM19088BUA	AlGaInP	Ultra Amber	605	30	45
LM19088AUY	LM19088BUY	AlGaInP	Ultra Yellow	595	30	45
LM19088AUG	LM19088BUG	AlGaInP	Ultra Green	573	30	45
LM19088APG	LM19088BPG	InGaN	Pure Green	525	120	300
LM19088AUB	LM19088BUB	InGaN	Ultra Blue	470	30	45
LM19088AUW	LM19088BUW	SMD	Ultra White	\	100	120
Unit:	\	\	\	nm	mcd	mcd

## Electrical Characteristics & Absolute Maximum Ratings

Color		Electrical Characteristics <sup>[1]</sup>			Absolute Maximum Ratings <sup>[1]</sup>		
		V <sub>F</sub> @ I <sub>F</sub> =20mA <sup>[2]</sup>		Reverse Current VR=5V	Power Dissipation	DC Forward Current	Peak Forward Current <sup>[3]</sup>
		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.