

### LM12288A/B Series – 1.20 inch 8x8 Square Dot Matrix LED Display



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



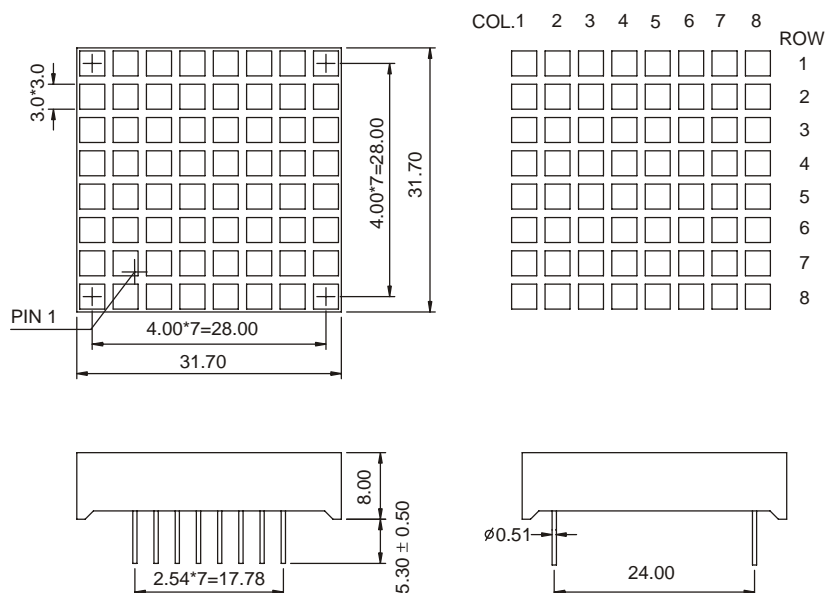
#### Features

- 31.70mm (1.20inch) matrix height
- Dot size: 3x3mm
- Pitch: 4.00mm
- 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

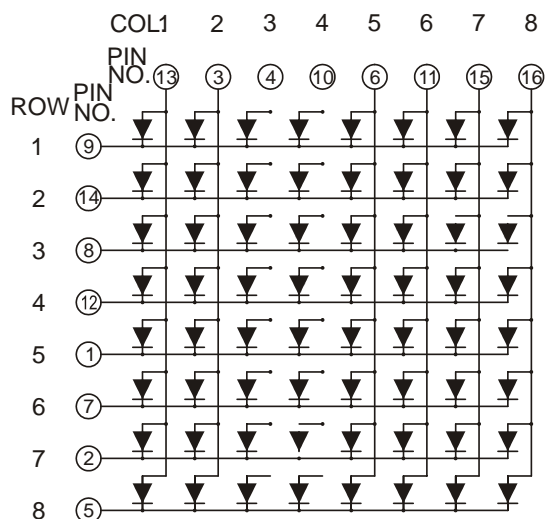


#### Notes:

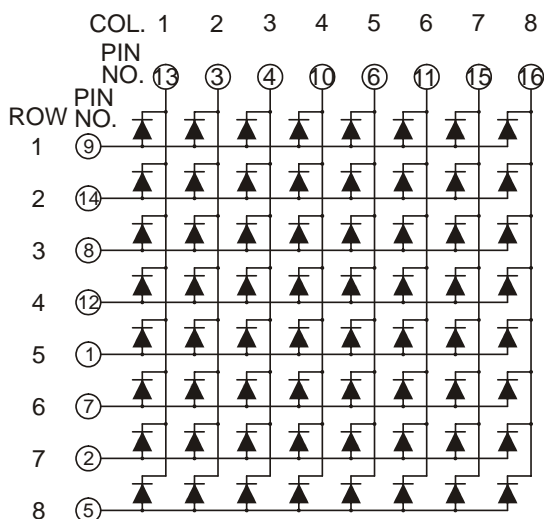
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25\text{mm}$  (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

### Internal Circuit Diagram

**LM12288A (Common Cathode Row)**



**LM12288B (Common Anode Row)**



### Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM12288AR	LM12288BR	GaAlAs	Super Red	640	8	10
LM12288AD	LM12288BD	GaAlAs	Hi-Red	640	18	25
LM12288AO	LM12288BO	GaAsP	Orange	625	7	9
LM12288AY	LM12288BY	GaAsP	Yellow	588	8	10
LM12288AG	LM12288BG	GaP	Green	568	7	9
LM12288AUR	LM12288BUR	AlGaInP	Ultra Red	640	30	45
LM12288AUO	LM12288BUO	AlGaInP	Ultra Orange	625	45	60
LM12288AUA	LM12288BUA	AlGaInP	Ultra Amber	605	30	45
LM12288AUY	LM12288BUY	AlGaInP	Ultra Yellow	595	30	45
LM12288AUG	LM12288BUG	AlGaInP	Ultra Green	573	30	45
LM12288APG	LM12288BPG	InGaN	Pure Green	525	120	300
LM12288AUB	LM12288BUB	InGaN	Ultra Blue	470	30	45
LM12288AUW	LM12288BUW	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.