

### LM40044A/B Series – 4.00 inch 4x4 Dot Matrix LED Display



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



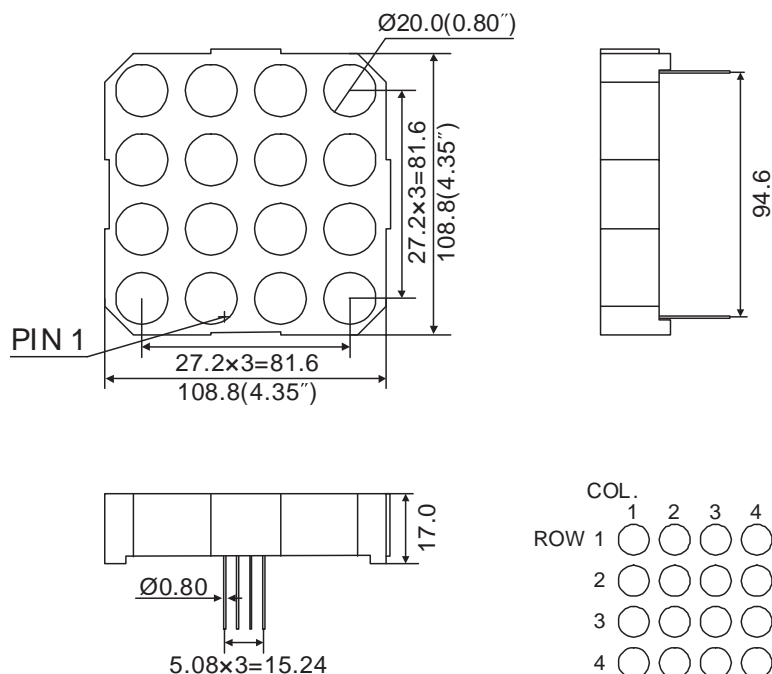
#### Features

- 108.80 mm (4.00 inch) digit high
- Dot size: Diameter 20.00 mm
- Pitch: 27.20 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
- Both CC and CA versions are available
- Cropped terminal pins

#### Package Dimensions

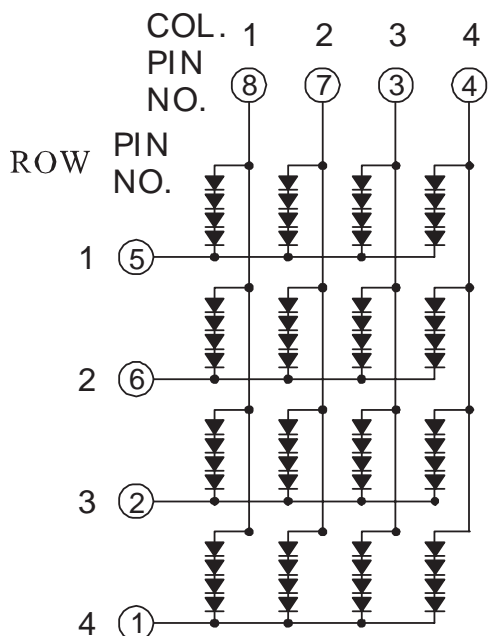


#### Notes:

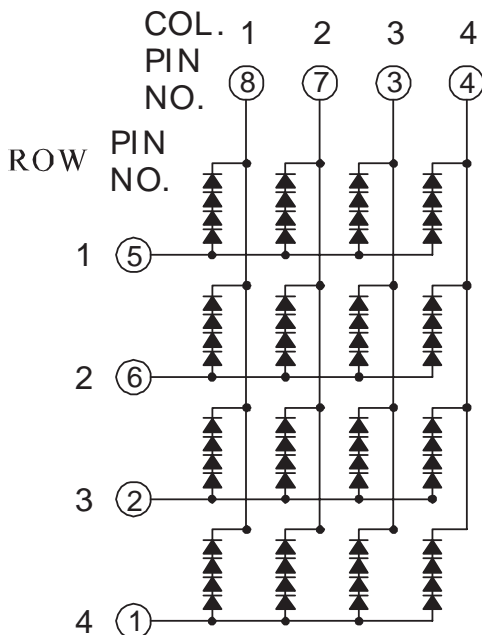
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25\text{mm}$  (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

## Internal Circuit Diagram

LM40044A (Common Cathode Row)



LM40044B (Common Anode Row)



## Selection Guide

Part No.		Chip			$I_V @ I_F = 20\text{mA}$	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LD40044AR	LD40044BR	GaAlAs	Super Red	640	24	30
LD40044AD	LD40044BD	GaAlAs	Hi-Red	640	54	75
LD40044AO	LD40044BO	GaAsP	Orange	625	21	27
LD40044AY	LD40044BY	GaAsP	Yellow	588	24	30
LD40044AG	LD40044BG	GaP	Green	568	21	27
LD40044AUR	LD40044BUR	AlGaInP	Ultra Red	640	90	135
LD40044AUO	LD40044BUO	AlGaInP	Ultra Orange	625	135	180
LD40044AUA	LD40044BUA	AlGaInP	Ultra Amber	605	90	135
LD40044AUY	LD40044BUY	AlGaInP	Ultra Yellow	595	90	135
LD40044AUG	LD40044BUG	AlGaInP	Ultra Green	573	90	135
LD40044APG	LD40044BPG	InGaN	Pure Green	525	360	900
LD40044AUB	LD40044BUB	InGaN	Ultra Blue	470	90	135
LD40044AUW	LD40044BUW	SMD	Ultra White	\	300	360
Unit:	\	\	\	nm	mcd	mcd

## Electrical Characteristics & Absolute Maximum Ratings

Parameter		Electrical optical Characteristics <sup>[1]</sup>			Absolute Maximum Ratings <sup>[1]</sup>		
Emitted Color	Per Dot	V <sub>F</sub> @ I <sub>F</sub> =20mA <sup>[2]</sup>		Reverse Current V <sub>R</sub> =5V	Power Dissipation	DC Forward Current	Peak Forward Current <sup>[3]</sup>
		Typ.	Max.				
Super Red	Per Dot	7.2	8.8	50	240	25	100
Hi-Red	Per Dot	7.2	8.8	50	240	25	100
Orange	Per Dot	8.4	10	50	320	30	100
Yellow	Per Dot	8.4	10	50	320	30	100
Green	Per Dot	8.8	10	50	320	30	100
Ultra Red	Per Dot	7.6	10.4	50	240	30	100
Ultra Orange	Per Dot	8	10.4	50	260	30	100
Ultra Amber	Per Dot	8	10.4	50	260	30	100
Ultra Yellow	Per Dot	8	10.4	50	260	30	100
Ultra Green	Per Dot	8.4	10.4	50	300	30	100
Pure Green	Per Dot	14	16	50	440	30	100
Ultra Blue	Per Dot	14	16	50	480	30	100
Ultra White	Per Dot	14	16	50	480	30	100
Unit:	\	V	V	uA	mW	mA	mA

Notes:

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