

## LM40057A/B Series – 4.00 inch 5x7 Dot Matrix LED Display



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



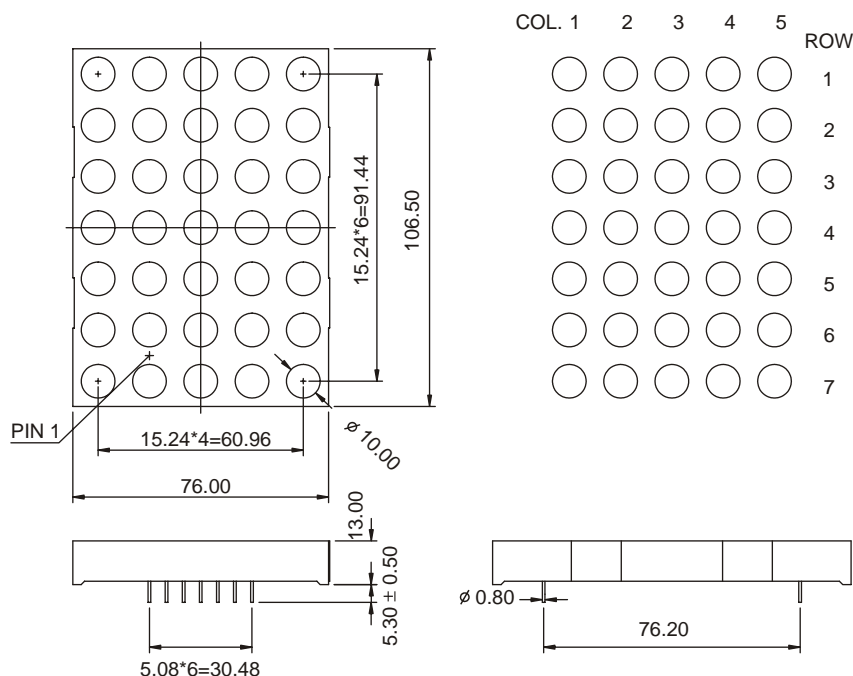
### Features

- 106.50mm (4.00 inch) digit high
- Dot size: Diameter 10.00 mm
- Pitch: 15.24 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

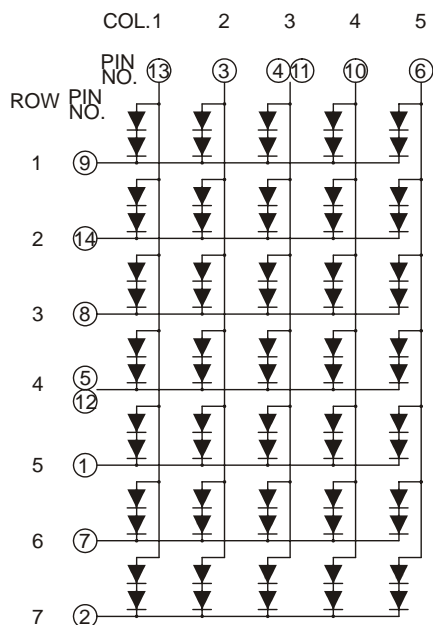


#### Notes:

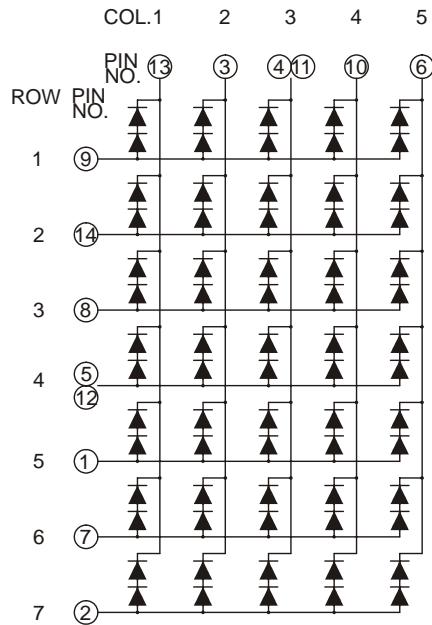
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25$ mm (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

## Internal Circuit Diagram

**LM40057A (Common Cathode Row)**



**LM40057B (Common Anode Row)**



## Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LD40057AR	LD40057BR	GaAlAs	Super Red	640	12	15
LD40057AD	LD40057BD	GaAlAs	Hi-Red	640	27	37.5
LD40057AO	LD40057BO	GaAsP	Orange	625	10.5	13.5
LD40057AY	LD40057BY	GaAsP	Yellow	588	12	15
LD40057AG	LD40057BG	GaP	Green	568	10.5	13.5
LD40057AUR	LD40057BUR	AlGaInP	Ultra Red	640	45	67.5
LD40057AUO	LD40057BUO	AlGaInP	Ultra Orange	625	67.5	90
LD40057AUA	LD40057BUA	AlGaInP	Ultra Amber	605	45	67.5
LD40057AUY	LD40057BUY	AlGaInP	Ultra Yellow	595	45	67.5
LD40057AUG	LD40057BUG	AlGaInP	Ultra Green	573	45	67.5
LD40057APG	LD40057BPG	InGaN	Pure Green	525	180	450
LD40057AUB	LD40057BUB	InGaN	Ultra Blue	470	45	67.5
LD40057AUW	LD40057BUW	SMD	Ultra White	\	150	180
Unit:	\	\	\	nm	mcd	mcd

## Electrical Characteristics & Absolute Maximum Ratings

Parameter		Electrical optical Characteristics <sup>[1]</sup>			Absolute Maximum Ratings <sup>[1]</sup>		
Emitted Color		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	3.6	4.4	50	120	25	100
Hi-Red	Per Dot	3.6	4.4	50	120	25	100
Orange	Per Dot	4.2	5	50	160	30	100
Yellow	Per Dot	4.2	5	50	160	30	100
Green	Per Dot	4.4	5	50	160	30	100
Ultra Red	Per Dot	3.8	5.2	50	120	30	100
Ultra Orange	Per Dot	4	5.2	50	130	30	100
Ultra Amber	Per Dot	4	5.2	50	130	30	100
Ultra Yellow	Per Dot	4	5.2	50	130	30	100
Ultra Green	Per Dot	4.2	5.2	50	150	30	100
Pure Green	Per Dot	7	8	50	220	30	100
Ultra Blue	Per Dot	7	8	50	240	30	100
Ultra White	Per Dot	7	8	50	240	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.