

## LM7057A/B Series - 0.70 inch 5x7 Dot Matrix LED Display



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



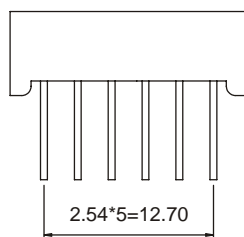
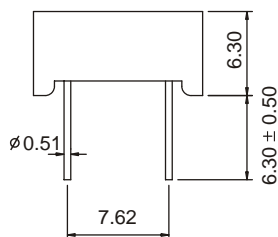
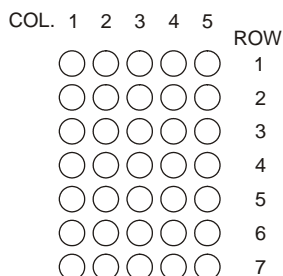
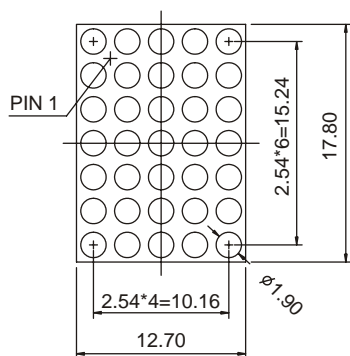
### Features

- 17.80mm (0.70inch) 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

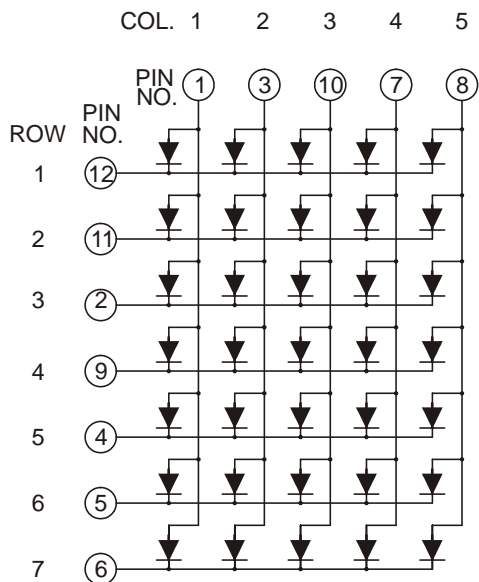


#### Notes:

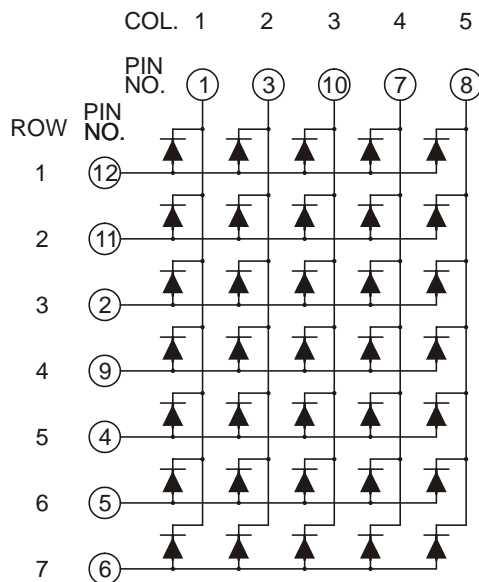
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25\text{mm}$  (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

## Internal Circuit Diagram

**LM7057A (Common Cathode Row)**



**LM7057B (Common Anode Row)**



## Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM7057AR	LM7057BR	GaAlAs	Super Red	640	8	10
LM7057AD	LM7057BD	GaAlAs	Hi-Red	640	18	25
LM7057AO	LM7057BO	GaAsP	Orange	625	7	9
LM7057AY	LM7057BY	GaAsP	Yellow	588	8	10
LM7057AG	LM7057BG	GaP	Green	568	7	9
LM7057AUR	LM7057BUR	AlGaInP	Ultra Red	640	30	45
LM7057AUO	LM7057BUO	AlGaInP	Ultra Orange	625	45	60
LM7057AUA	LM7057BUA	AlGaInP	Ultra Amber	605	30	45
LM7057AUY	LM7057BUY	AlGaInP	Ultra Yellow	595	30	45
LM7057AUG	LM7057BUG	AlGaInP	Ultra Green	573	30	45
LM7057APG	LM7057BPG	InGaN	Pure Green	525	120	300
LM7057AUB	LM7057BUB	InGaN	Ultra Blue	470	30	45
LM7057AUW	LM7057BUW	InGaN	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.