LM12057A/B Series – 1.20 inch 5x7 Dot Matrix LED Display

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

RoHS

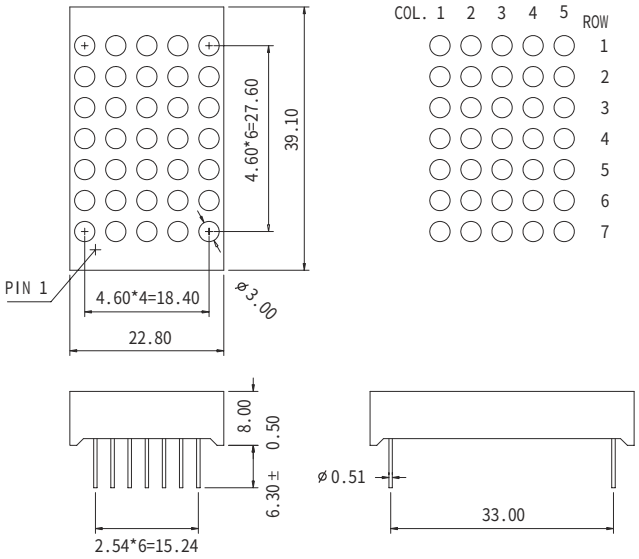
Features

- 39.10mm (1.20inch) digit high
- Dot size: Diameter 3.00mm
- Pitch: 4.6mm
- 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

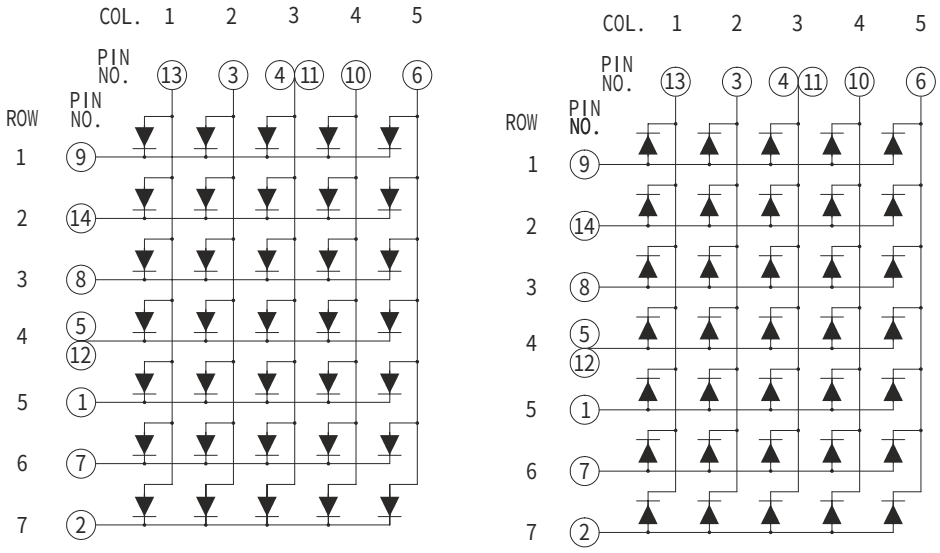


Notes:

1. All dimensions are in millimeters (inches), Tolerance is ± 0.25mm (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

LM12057A (Common Cathode Row) **LM12057B (Common Anode Row)**



Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM12057AR	LM12057BR	GaAlAs	Super Red	627	8	10
LM12057AD	LM12057BD	GaAlAs	Hi-Red	627	18	25
LM12057AO	LM12057BO	GaAsP	Orange	610	7	9
LM12057AY	LM12057BY	GaAsP	Yellow	588	8	10
LM12057AG	LM12057BG	GaP	Green	568	7	9
LM12057AUR	LM12057BUR	AlGaInP	Ultra Red	627	30	45
LM12057AUO	LM12057BUO	AlGaInP	Ultra Orange	610	45	60
LM12057AUA	LM12057BUA	AlGaInP	Ultra Amber	605	30	45
LM12057AUY	LM12057BUY	AlGaInP	Ultra Yellow	595	30	45
LM12057AUG	LM12057BUG	AlGaInP	Ultra Green	573	30	45
LM12057APG	LM12057BPG	InGaN	Pure Green	525	120	300
LM12057AUB	LM12057BUB	InGaN	Ultra Blue	470	30	45
LM12057AUW	LM12057BUW	InGaN	Ultra White	\	100	120
Unit:	\	\	\	nm	mcd	mcd

Electrical Characteristics & Absolute Maximum Ratings

Color		Electrical Characteristics[1]			Absolute Maximum Ratings[1]		
		V_F@ I_F=20mA[2]		Reverse Current VR=5V	Power Dissipation	DC Forward Current	Peak Forward Current[3]
		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.