
SPECIFICATIONS FOR DOT MATRIX DISPLAYS

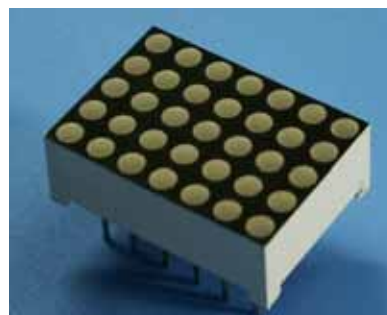
0.7" 5*7 Dot Matrix

LMD07057□□-10 Series

WENRUN OPTOELECTRONIC

◆ Features:

- Emitting dot 1.9mm diameter.
- High efficiency, low power consumption.
- Extremely low current.
- Low development cost.
- Big viewing angle vertically and horizontally.



LMD07057A/B□-10

◆ Descriptions:

- The LMD07057 is a 17.8mm(0.7") matrix height 5×7 dot matrix display.
- These devices are made with white dots and black surface.

◆ Application

- Instrument panels.
- Digital read out display.

◆ Selection Guide:

Part No.		Chip		Lens Color
Anode	Cathode	Material	Emitting Color	
LMD07057BSR-10	LMD07057ASR-10	GaAlAs	Super Red	White Diffused
LMD07057BG-10	LMD07057AG-10	GaP	Green	
LMD07057BY-10	LMD07057AY-10	GaAsP/GaP	Yellow	
LMD07057BE-10	LMD07057AE-10	GaAsP/GaP	Orange	

◆ Absolute Maximum Rating (Ta=25°C)

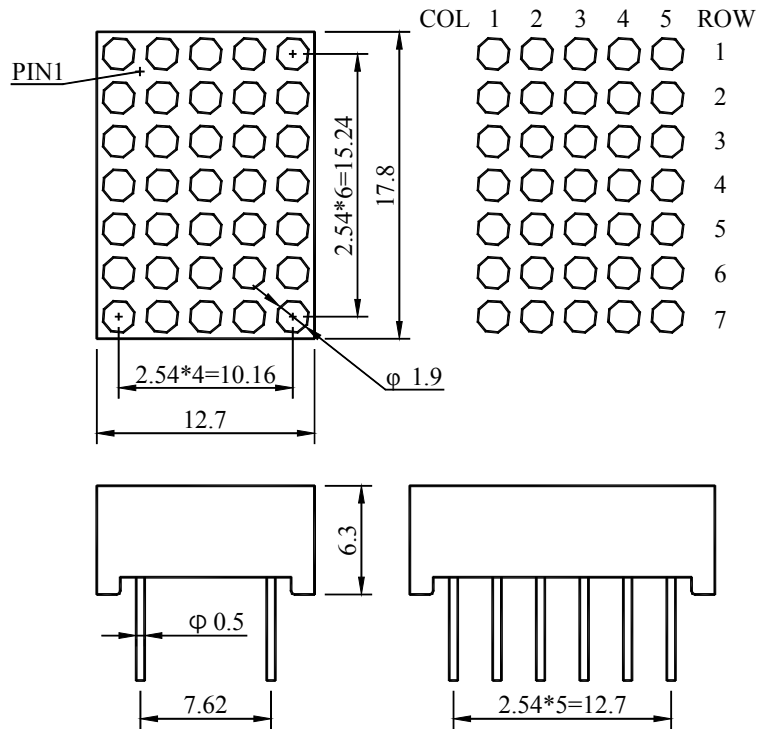
Parameter	Symbol	Super Red	Green	Yellow	Orange	Unit
Power Dissipation/ Dot	P _d	50	60	60	60	mW
Peak Forward Current / Dot (Duty 1/10@ 1KHz)	I _{FP}	70	70	70	70	mA
Continuous Forward Current / Dot①	I _F	20	20	20	20	mA
Recommend use current / Dot ②	I _F	5~10	5~10	5~10	5~10	mA
Reverse Voltage / Dot	V _R	5	5	5	5	V
Operating Temperature Range	Topr	-25~+75				°C
Storage Temperature Range	Tstg	-30 ~ +85				°C
Solder Temperature③	Tsol	260±5				°C

- Notes:** 1、 This is the limit current . It is not allowed to use when the product work continuously.
 2、 It is recommended that the product is driven by TTL,CMOS.
 3、 Soldering time ≤ 5 seconds.

◆ Electrical Optical Characteristics (Ta=25°C)

Parameter	Symbol	Super Red		Green		Yellow		Orange		Unit	Test Condition
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.		
Luminous Intensity / Dot	I _V	8.4	--	4.2	--	4.2	--	4.2	--	mcd	I _F =10mA
Forward Voltage / Dot	V _F	1.85	2.3	2.2	2.5	2.0	2.5	2.0	2.5	V	I _F =20mA
Reverse Current / Dot	I _R	--	50	--	50	--	50	--	50	uA	V _R =5V
Dominant Wavelength	λ _d	645	--	565	--	585	--	630	--	nm	I _F =20mA
Spectral Line Half Width	Δλ	30	--	30	--	30	--	30	--	nm	I _F =20mA

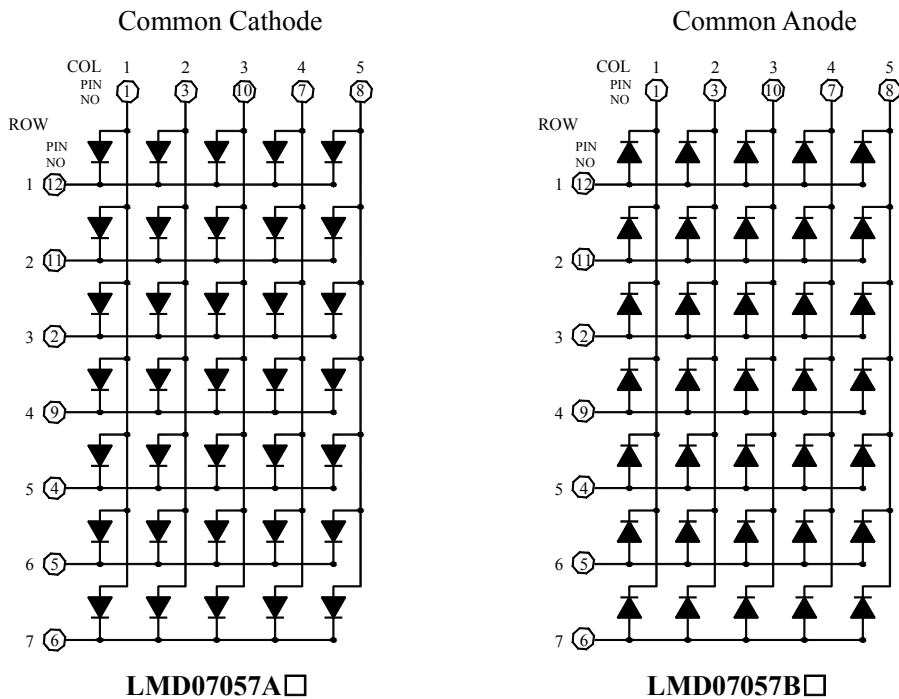
◆ Package Dimensions:



NOTES:

- All dimensions are in millimetres (mm), Tolerance is $\pm 0.25\text{mm}$ unless otherwise noted.
- Specifications are subject to change without notice.

◆ Internal Circuit:



◆ Reliability Test Items and Conditions

NO	Test Item	Test Conditions	Duration	Sample	Ac/Re
1	Temperature Cycle	-30℃~25℃~85℃~25℃ 30min 5min 30min 5min	50cycles	100	0/1
2	High Temp. Storage	Ta=85℃	1000hours	100	0/1
3	Temp.& Humidity Test	Ta=85℃ RH=85%	1000hours	100	0/1
4	Low Temp. Storage	Ta=-30℃	1000hours	100	0/1
5	Operating Life Test	Ta=25±5℃ DC IF=15mA	1000hours	100	0/1
6	Solder Heat	Tsol=260±5℃, 5s	1times	20	0/1

◆ Typical Electro-Optical Characteristics Curves

