
SPECIFICATIONS FOR DOT MATRIX DISPLAYS

2.0" 5*7 Multi-Color Dot Matrix

[LMD20057□SRG-15 Series](#)

WENRUN OPTOELECTRONIC

Features:

- Emitting dot 5.0mm diameter.
- High efficiency, low power consumption.
- Extremely low current.
- Low development cost.
- Big viewing angle vertically and horizontally.

**LMD20057A/B/C/DSRG-15****Descriptions:**

- The LMD20057 is a 53.1mm (2.0") matrix height 5×7 dot matrix display.
- These devices are made with white dots and black surface.

Applications:

- Instrument panels.
- Digital read out display.

Selection Guide:

Part No.		Chip		Lens Color
Anode	Cathode	Material	Emitting Color	
LMD20057B/DSRG-15	LMD20057A/CSRG-15	GaAlAs	Super Red	Water clean
		GaP	Green	

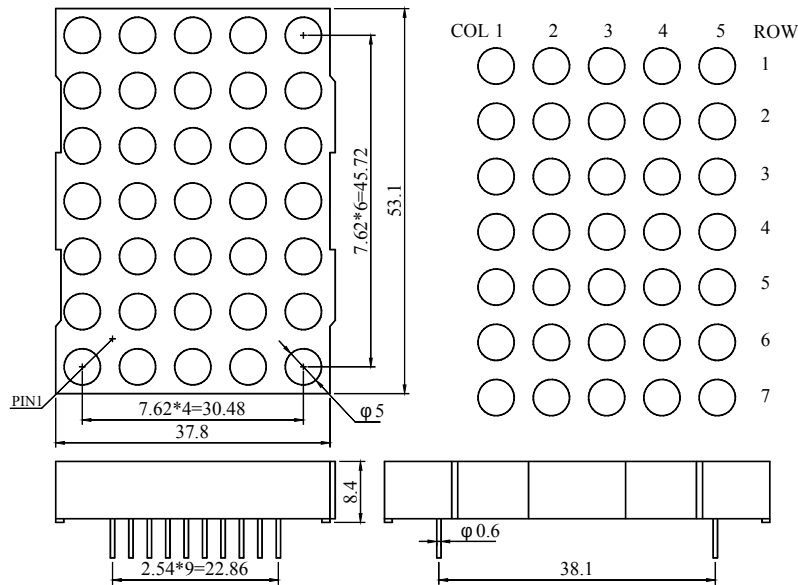
Absolute Maximum Rating (Ta=25)

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

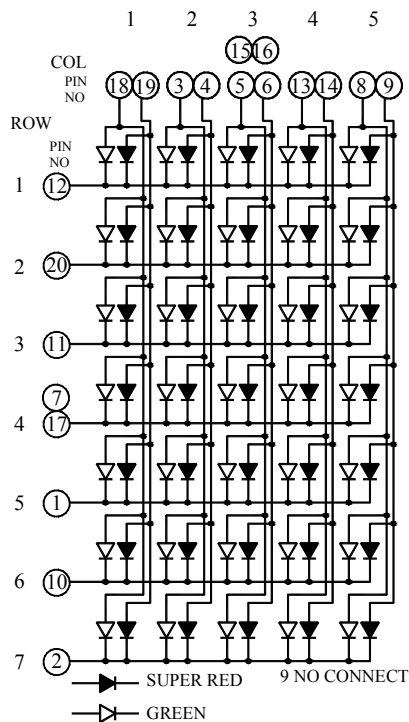
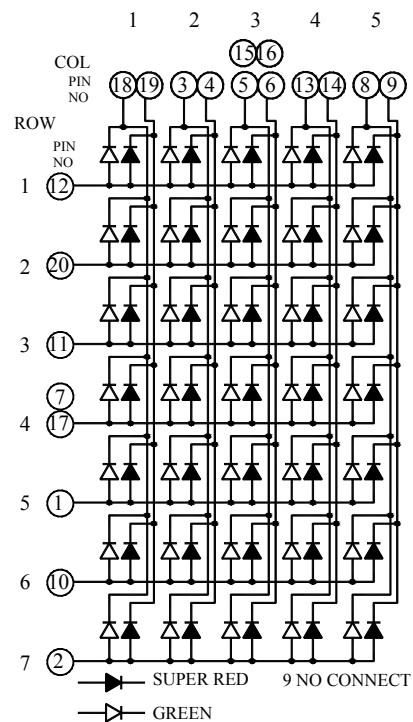
- Notes :** 1、 This is the limit current . It is not allowed to use when the product work continuously.
 2、 It is recommended that the product is driven by TTL,CMOS.
 3、 Soldering time ≤ 5 seconds.

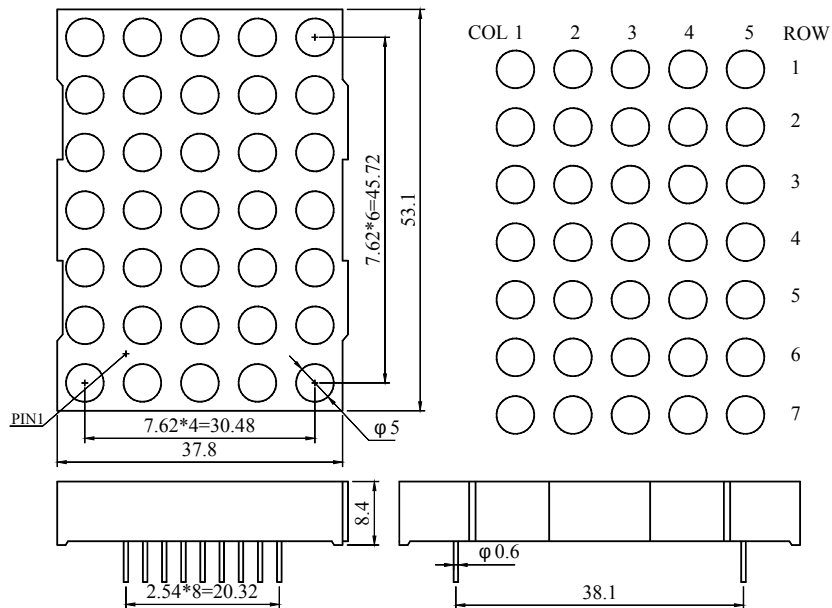
Electrical Optical Characteristics (Ta=25)

Parameter	Symbol	Device	Typ.	Max.	Unit	Test Condition
Luminous Intensity / Dot	I _v	Super Red Green	12 6.0	-- --	mcd	I _F =10mA
Forward Voltage / Dot	V _F	Super Red Green	1.85 2.2	2.3 2.5	V	I _F =20mA
Reverse Current / Dot	I _R	Super Red Green	-- --	50 50	uA	V _R =5V
Dominant Wavelength	λ d	Super Red Green	645 565	-- --	nm	I _F =20mA
Spectral Line Half Width	Δ λ	Super Red Green	30 30	-- --	nm	I _F =20mA

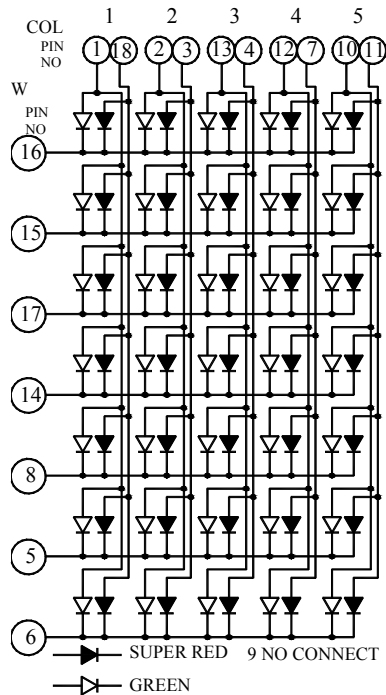
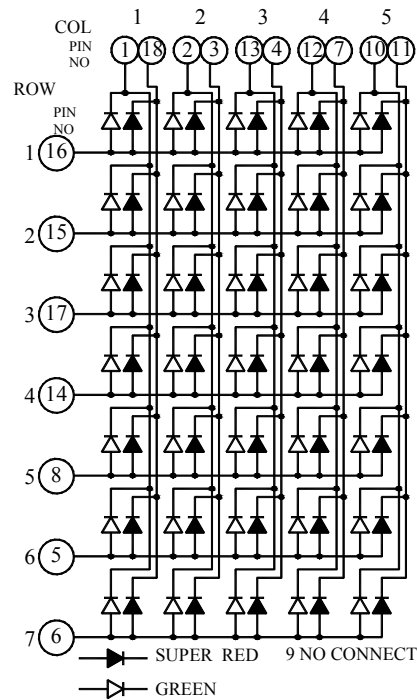
Package Dimensions:**NOTES :**

- 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:**LMD20057A □ □****LMD20057B □ □**

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:**LMD20057C □ □****LMD20057D □ □**

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

