

SPECIFICATIONS FOR DOT MATRIX DISPLAYS

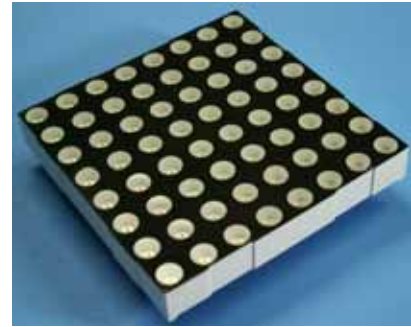
2.3" 8*8 Multi-Color Dot Matrix

[LMD23088 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.



LMD23088A/B/C/DSRG-15

Descriptions:

- The LMD23088 is a 60.2mm (2.3") matrix height 8×8 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	
LMD23088B/DSRG-15	LMD23088A/CSRG-15	GaAlAs	Super Red	Water clear
		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	T_{opr}	-25~ +75		
Storage Temperature Range	T_{stg}	-30 ~ +85		
Solder Temperature	T_{sol}	260 ± 5		

Notes : 1、 This is the limit current. It is not allowed to use when the product work continuously.

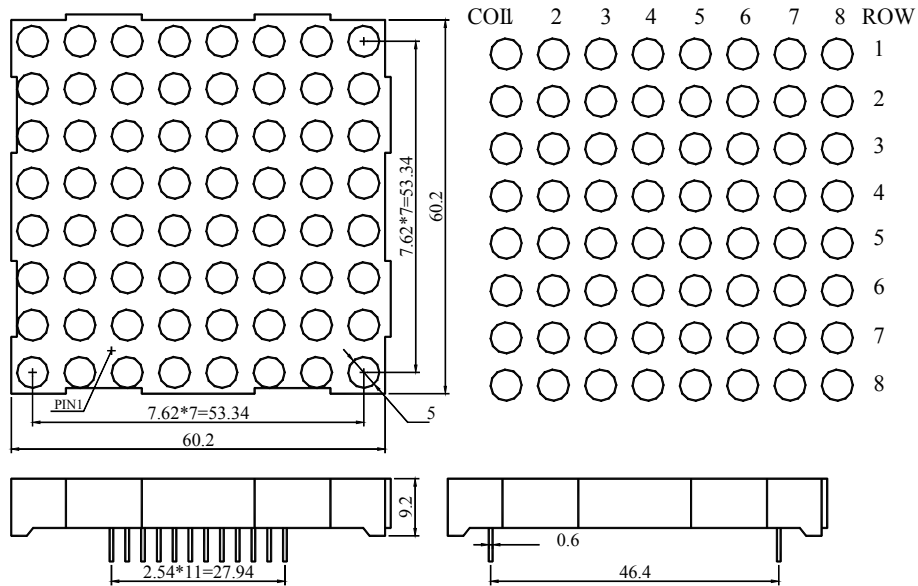
2、 It is recommended that the product is driven by TTL,CMOS .

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	13.5 6.5	-- --	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	Super Red Green	645 565	-- --	nm	$I_F=20mA$
Spectral Line Half Width		Super Red Green	30 30	-- --	nm	$I_F=20mA$

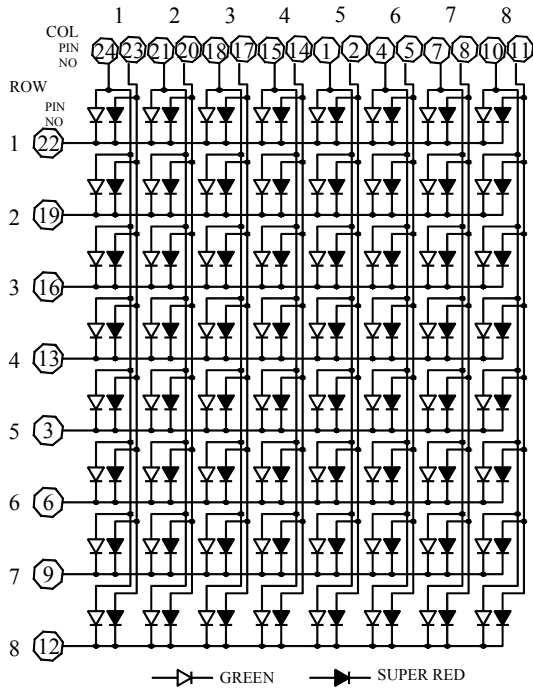
Package Dimensions:



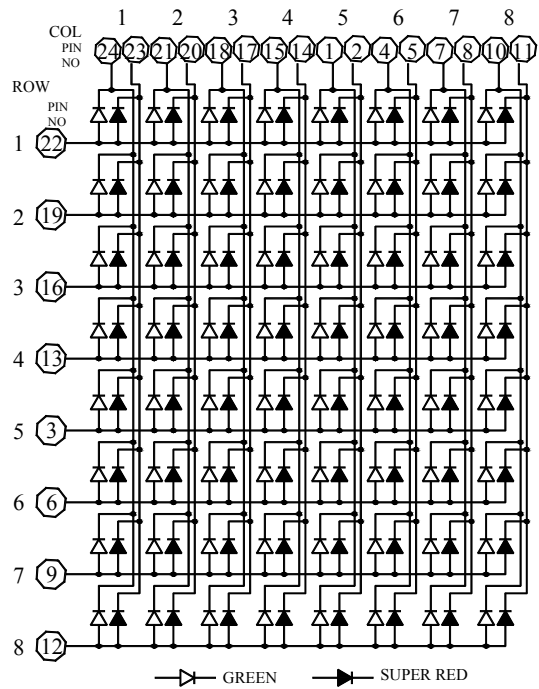
NOTES :

- 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:

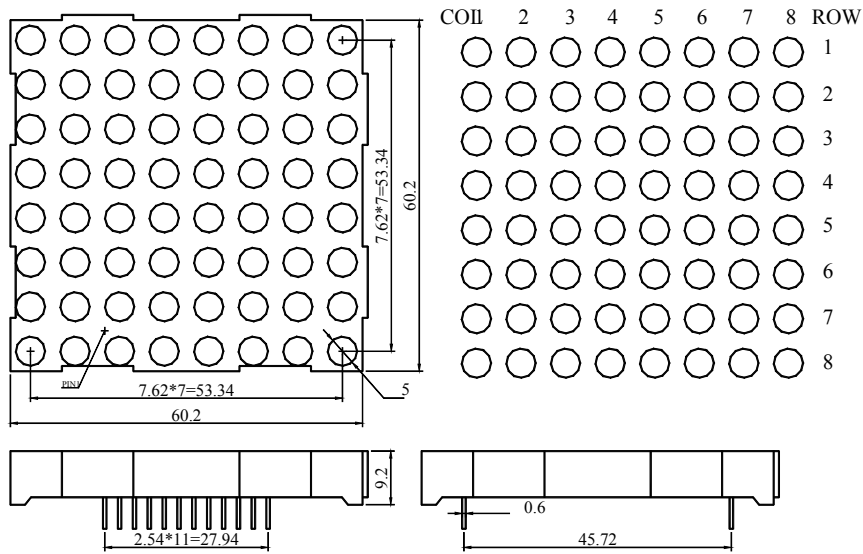


LMD23088A



LMD23088B

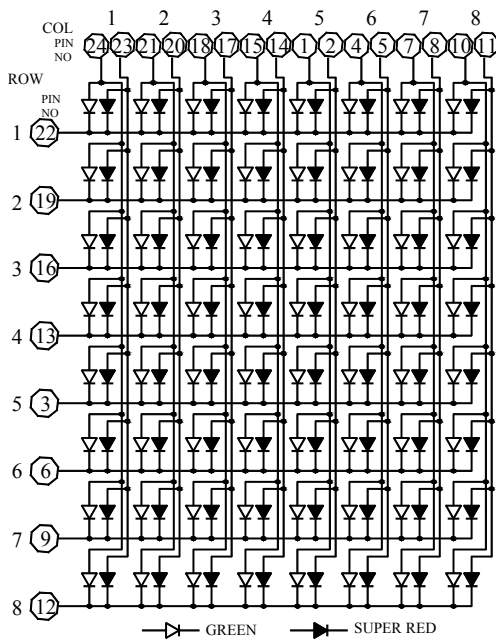
Package Dimensions:



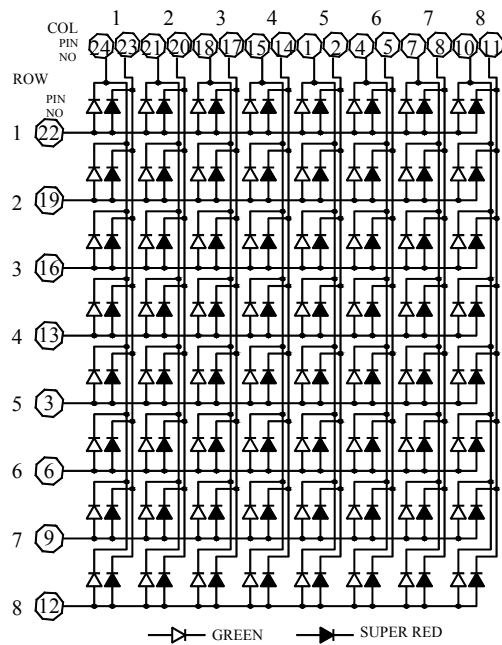
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Internal Circuit:



LMD23088C



LMD23088D

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 , 10s	1times	20	0/1

Typical Electro-Optical Characteristics Curves

