



## Technical Data Sheet 2.3" 8\*8 Dot Matrix Displays

### ELM-2881GWA

#### ■ Features :

- Large emitting dot 0.2" diameter.
- Low power/high brightness.
- Pb free

#### ■ Descriptions :

- The ELM-2881 series is a large emitting area(5.0mm diameter)LED sources configured in a 64 dots 8\*8 matrix array.
- These devices are made with white dots and gray surface.



#### ■ Applications :

- Instrument panels
- Digital read out display

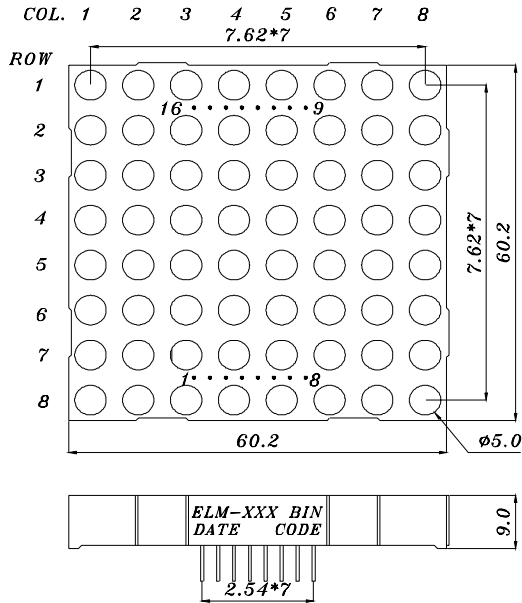
PART NO.	Chip	
	Material	Emitted Color
ELM-2881GWA	GaP	Green



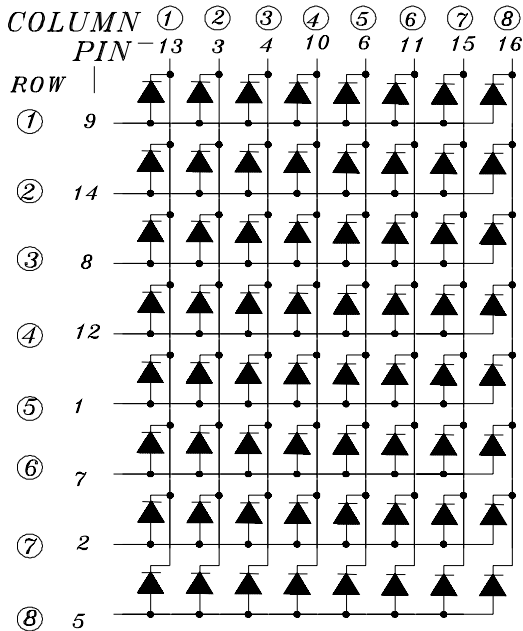
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Package Dimensions



<i>CATHODE COLUMN</i>	
<i>ANODE ROW</i>	
1	<i>ANODE ROW 5</i>
2	<i>ANODE ROW 7</i>
3	<i>CATHODE COLUMN 2</i>
4	<i>CATHODE COLUMN 3</i>
5	<i>ANODE ROW 8</i>
6	<i>CATHODE COLUMN 5</i>
7	<i>ANODE ROW 6</i>
8	<i>ANODE ROW 3</i>
9	<i>ANODE ROW 1</i>
10	<i>CATHODE COLUMN 4</i>
11	<i>CATHODE COLUMN 6</i>
12	<i>ANODE ROW 4</i>
13	<i>CATHODE COLUMN 1</i>
14	<i>ANODE ROW 2</i>
15	<i>CATHODE COLUMN 7</i>
16	<i>CATHODE COLUMN 8</i>



- Notes:**
1. All dimensions are in millimeters , tolerance is 0.25mm unless otherwise noted.
  2. Above specification may be changed without notice.
- Supplier will reserve authority on material change for above specification.

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## ■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	30	mA
Operating Temperature	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	-40 to +100	°C
Soldering Temperature	T <sub>sol</sub>	260 ± 5	°C
Power Dissipation	P <sub>d</sub>	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I <sub>F(Peak)</sub>	160	mA

## ■ Electronic optical characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	2.8	6.4	----	mcd	I <sub>F</sub> =10mA
Peak Wavelength	λ <sub>p</sub>	----	565	----	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	----	570	----	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	----	30	----	nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	1.7	2.1	2.4	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	----	----	10	μA	V <sub>R</sub> =5V

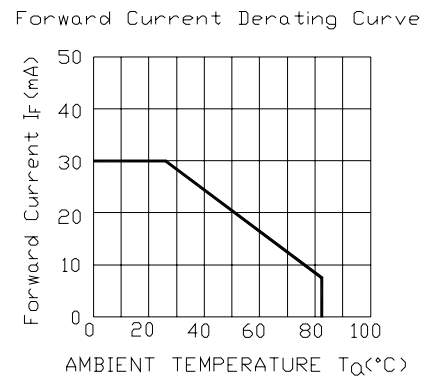
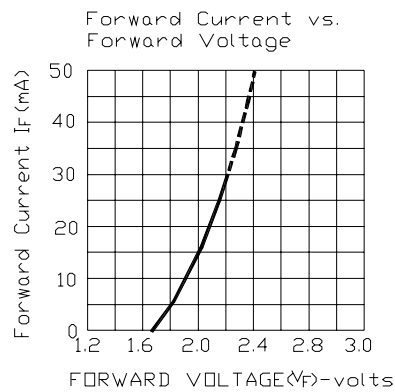
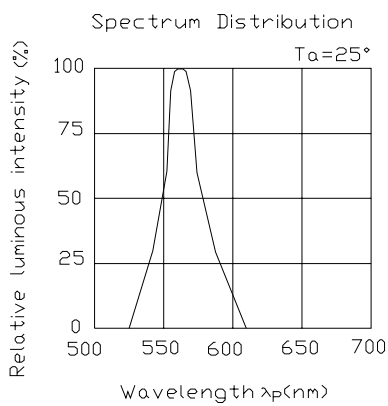


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■ Typical Electro-Optical Characteristic Curves:

GHIP Material:Gap  
Emitted Color:Yellow Green





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■ Reliability test items and conditions:

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	IF = 10 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1