



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDM-288-013 REV: 1

2.3" 8*8 Dot Matrix Displays

PART NO. : ELM-2881GWA ECN : Page: 1/5

■ Features :

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

■ Applications:

- Instrument panels
- Digital read out display

■ 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.

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

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<http://www.everlight.com>

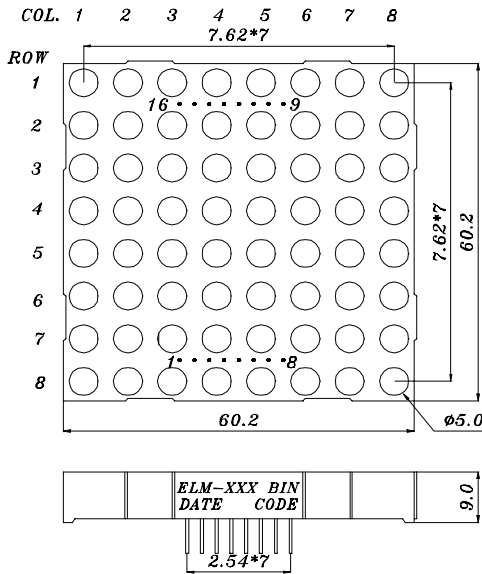
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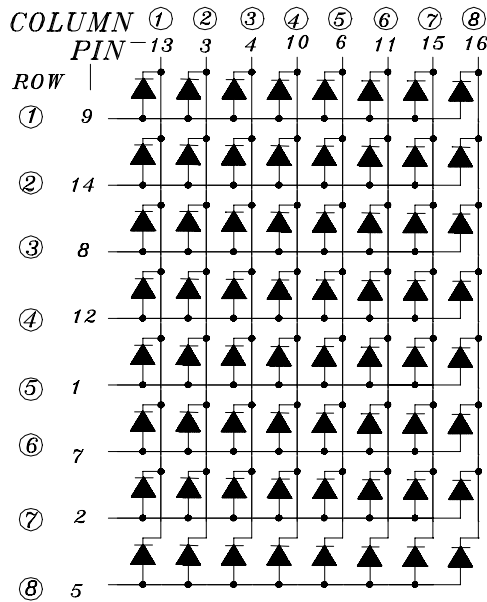
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Package Dimensions:



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



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	VR	5	V
Forward Current	IF	20	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	IF(Peak)	160	mA

■ Electronic optical characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	4.0	6.4	----	mcd	IF=10mA
Peak Wavelength	λ p	----	570	----	nm	IF=20mA
Dominant Wavelength	λ d	----	571	----	nm	IF=20mA
Spectrum Radiation Bandwidth	△ λ	----	30	----	nm	IF=20mA
Forward Voltage	VF	1.7	2.1	2.4	V	IF=20mA
Reverse Current	IR	----	----	10	μ A	VR=5V



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■ Typical Electro-Optical Characteristic Curves:

GHIP Material:Gap
Emitted Color:Yellow Green

Spectrum Distribution
Ta=25°

Relative luminous intensity (%)

Wavelength λ_p (nm)

Wavelength (nm)	Relative luminous intensity (%)
500	0
550	50
560	100
570	80
600	25
650	0
700	0

Forward Current vs. Forward Voltage

Forward Current I_f (mA)

FORWARD VOLTAGE(V)-volts

FORWARD VOLTAGE (V)	Forward Current I_f (mA)
1.6	0
2.0	15
2.4	30
2.6	45
2.8	50

Forward Current Derating Curve

Forward Current I_f (mA)

AMBIENT TEMPERATURE T_Q (°C)

AMBIENT TEMPERATURE T_Q (°C)	Forward Current I_f (mA)
0	30
25	30
50	20
75	10
80	0



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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

