



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>

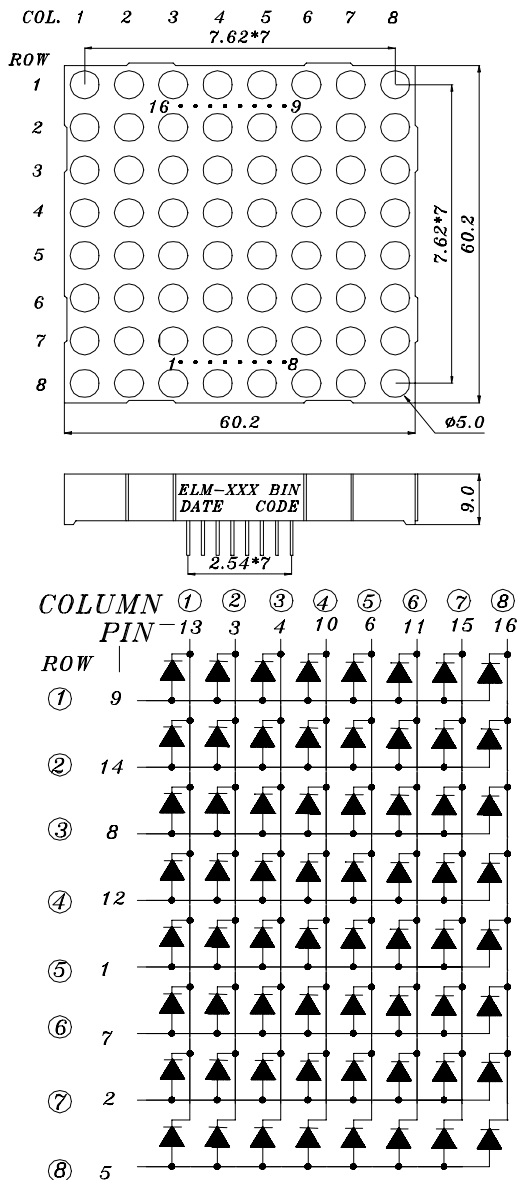
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2.3" 8*8 Dot Matrix Displays

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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 :

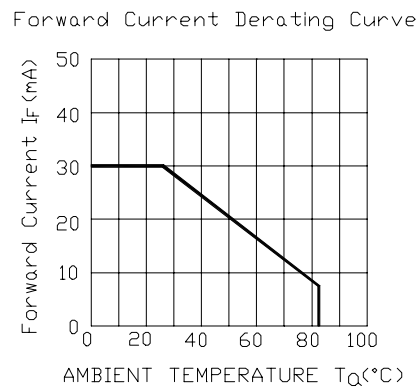
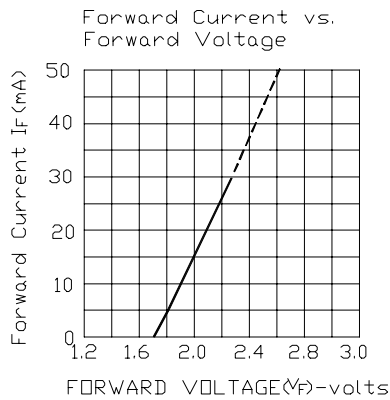
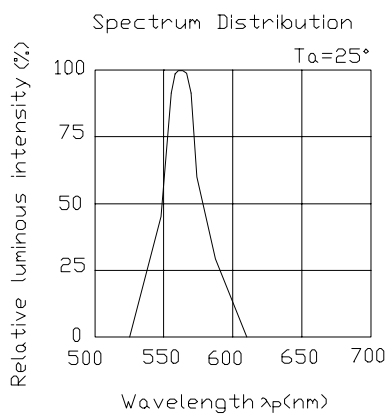
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|---------------------------------|--------|------|------|------|------|-----------|
| Luminous Intensity | Iv | 4.0 | 6.4 | ---- | mcd | IF=10mA |
| Peak Wavelength | λ p | ---- | 570 | ---- | nm | IF=20mA |
| Dominant Wavelength | λ d | ---- | 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





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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 |