



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Technical Data Sheet
2.3" 8*8 Dot Matrix Displays

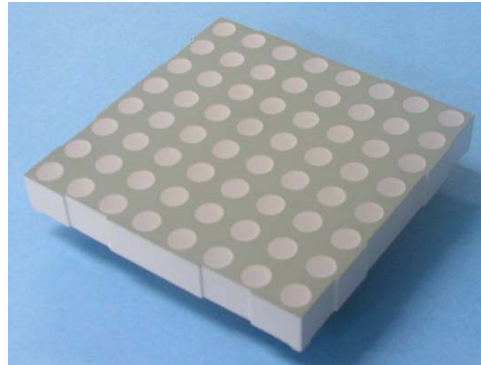
ELM-2881SYGWA/S530-E2

■ Features :

- Large emitting dot 0.2" diameter.
- Low power/high brightness.
- Pb free
- The product itself will remain within RoHS compliant version

■ 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 :

- Audio equipment
- Instrument panels
- Digital read out display

| PART NO. | Chip | |
|-----------------------|----------|--------------------|
| | Material | Emitted Color |
| ELM-2881SYGWA/S530-E2 | AlGaInP | Super Yellow Green |

BG0507180

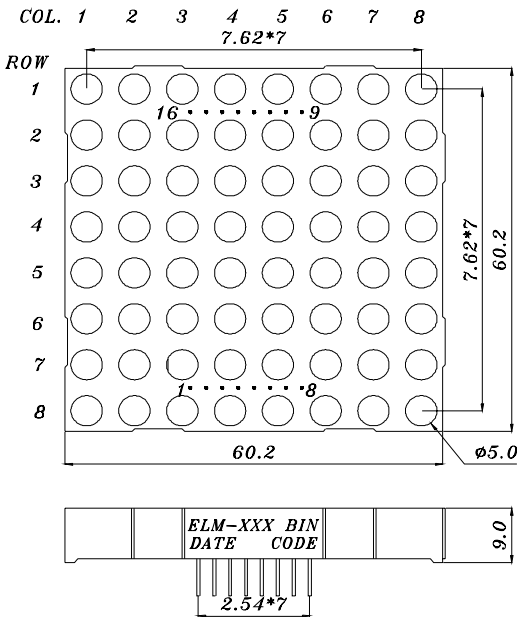
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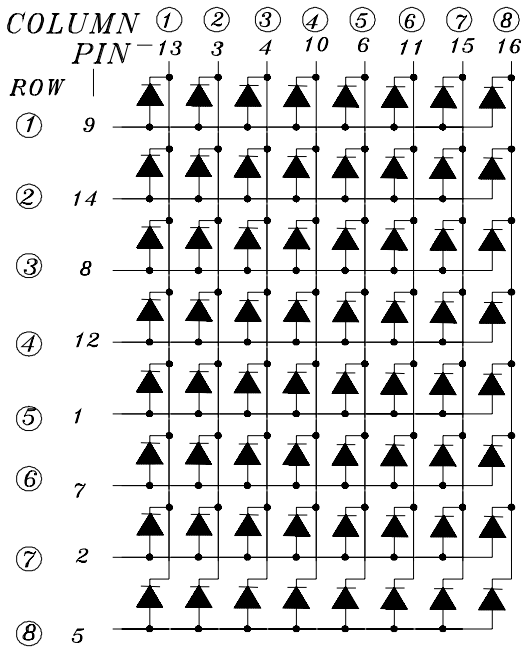
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Package Dimensions



| | |
|-----------------------|-------------------------|
| <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.



Technical Data Sheet

2.3" 8*8 Dot Matrix Displays

ELM-2881SYGWA/S530-E2

■ Absolute maximum ratings at Ta = 25°C :

| Parameter | Symbol | Rating | Unit |
|-------------------------|--------|-------------|------|
| Reverse Voltage | VR | 5 | V |
| Forward Current | IF | 25 | mA |
| Operating Temperature | Topr | -40 to +85 | °C |
| Storage Temperature | Tstg | -40 to +100 | °C |
| Soldering Temperature * | Tsol | 260 ± 5 | °C |
| Electrostatic Discharge | ESD | 2000 | V |
| Power Dissipation | Pd | 60 | mW |

Note: *Soldering time ≤ 5 seconds.

■ Electronic optical characteristics :

| Parameter | | Symbol | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|-------------|------------------|-------|------|------|---------|-----------|
| Luminous Intensity | Per segment | Iv | ---- | 3.2 | ---- | mcd | IF=2mA |
| | | | 7.8 | 17.6 | ---- | mcd | IF=10mA |
| Peak Wavelength | | λp | ---- | 575 | ---- | nm | IF=20mA |
| Dominant Wavelength | | λd | ---- | 573 | ---- | nm | IF=20mA |
| Spectrum Radiation Bandwidth | | $\Delta \lambda$ | ---- | 20 | ---- | nm | IF=20mA |
| Forward Voltage | | VF | ----- | 2.0 | 2.4 | V | IF=20mA |
| Reverse Current | | IR | ---- | ---- | 100 | μA | VR=5V |

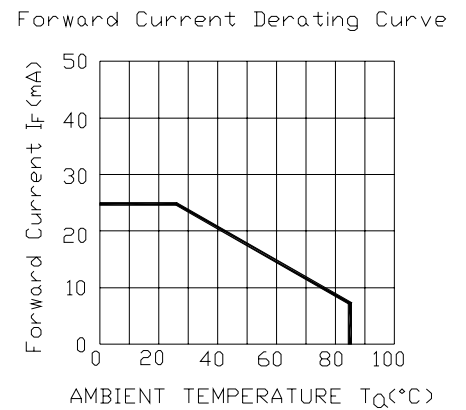
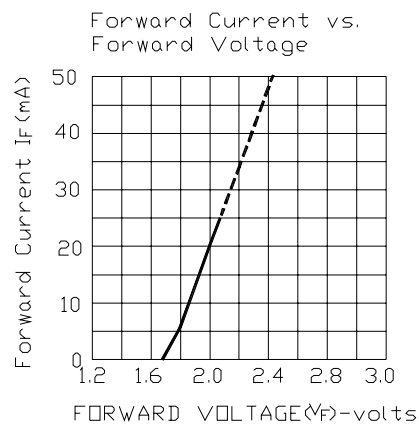
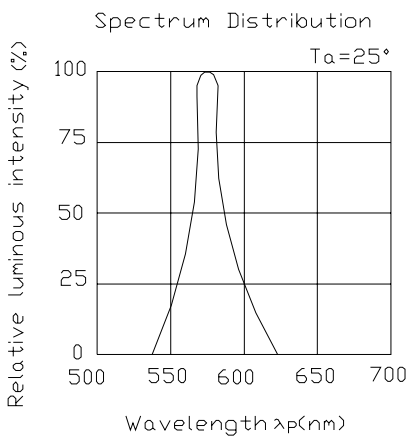


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2.3" 8*8 Dot Matrix Displays

ELM-2881SYGWA/S530-E2

■ Typical Electro-Optical Characteristic Curves:

CHIP Material:AlGaInP
Emitted Color:Super Yellow Green





Technical Data Sheet

2.3" 8*8 Dot Matrix Displays

ELM-2881SYGWA/S530-E2**Reliability test items and conditions:**

The reliability of products shall be satisfied with items listed below.

Confidence level : 97%

LTPD : 3%

| NO | Item | Test Conditions | Test Hours/Cycle | Sample Size | Failure Judgment Criteria | Ac/Re |
|----|----------------------------------|--|------------------|-------------|---|-------|
| 1 | Solder Heat | TEMP : 260°C ± 5 °C | 5 SEC | 76 PCS | $I_v \leq I_{vt} * 0.5$ or $V_f \geq U$ or $V_f \leq L$ | 0/1 |
| 2 | Temperature Cycle | H : +85°C 30min \int 5 min L : -55°C 30min | 50 CYCLE | 76 PCS | | 0/1 |
| 3 | Thermal Shock | H : +100°C 5min \int 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 |

Note : I_{vt} : The test I_v value of the chip before the reliability test

I_v : The test value of the chip that has completed the reliability test

U : Upper Specification Limit

L : Lower Specification Limit



Technical Data Sheet
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ELM-2881SYGWA/S530-E2

■ Packing Quantity Specification

1.8PCS/tube, 14 tubes/box

2.4Boxes/Carton

Label Form Specification

EVERLIGHT

CPN:

P/N:



M2881SYGWA/S530-E2

QTY:



LOT NO:

MADE IN CHINA

CAT:

HUE:

REF:

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Dominant Wavelength

REF: Reference

LOT No: Lot Number

MADE IN CHINA: Production Place

Notes :

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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