# imall

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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# EVERLIGHT ELECTRONICS CO.,LTD.

# Technical Data Sheet 0.56" Triple Digit Displays

#### Features :

VERLIGH

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.
- Pb free
- The product itself will remain within RoHS compliant version
- Descriptions :
- The ELT-511 series is a large 14.22 mm (0.56")high seven segment display designed for viewing distances up to 7 meters.
- These displays provide excellent reliability in bright ambient light.
- These devices are made with white segments and gray surface.

#### Applications :

- Audio equipment
- Instrument panels
- Digital read out display

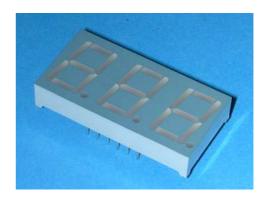
| PART NO              | Chip     |                    |  |
|----------------------|----------|--------------------|--|
| PART NO.             | Material | Emitted Color      |  |
| ELT-511SYGWA/S530-E2 | AlGaInP  | Super Yellow Green |  |

#### CG0508035 61064335

EVERLIGHT ELECTRONICS CO.,LTD. Device Number : CDDT-511-038

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### ELT-511SYGWA/S530-E2



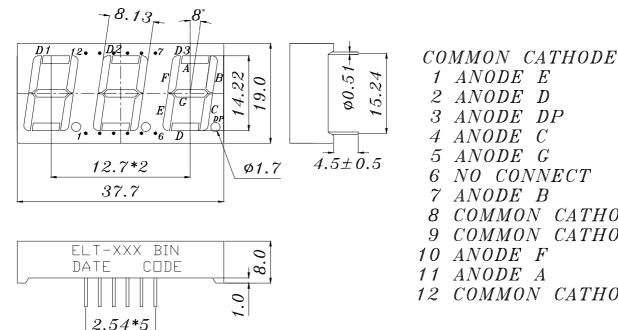


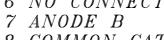
# EVERLIGHT ELECTRONICS CO., LTD.

# Technical Data Sheet 0.56" Triple Digit Displays

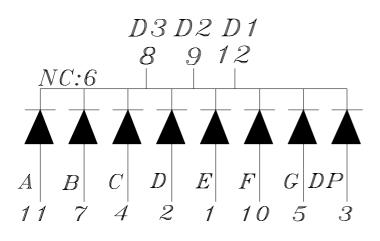
### ELT-511SYGWA/S530-E2

Package Dimensions





- COMMON CATHODE D3
- 9 COMMON CATHODE D2
- COMMON CATHODE D1



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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### EVERLIGHT ELECTRONICS CO.,LTD.

### Technical Data Sheet 0.56" Triple Digit Displays

#### ELT-511SYGWA/S530-E2

Absolute maximum ratings at  $Ta = 25^{\circ}C$ :

| 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  $\leq$  5 seconds.

Electronic optical characteristics :

| Parameter                       |                   | Symbol             | Min. | Тур. | Max. | Unit | Condition |  |
|---------------------------------|-------------------|--------------------|------|------|------|------|-----------|--|
| Luminous<br>Intensity           | Per segment       | Iv                 |      | 0.9  |      | mcd  | IF=2mA    |  |
|                                 |                   |                    | 2.8  | 4.5  |      | mcd  | IF=10mA   |  |
|                                 | Per decimal point |                    |      | 0.4  |      | mcd  | IF=2mA    |  |
|                                 |                   |                    | 1.0  | 1.8  |      | mcd  | IF=10mA   |  |
| Peak Wavelength                 |                   | λp                 |      | 575  |      | nm   | IF=20mA   |  |
| Dominant Wavelength             |                   | λd                 |      | 573  |      | nm   | IF=20mA   |  |
| Spectrum Radiation<br>Bandwidth |                   | $	riangle \lambda$ |      | 20   |      | nm   | IF=20mA   |  |
| Forward Voltage                 |                   | VF                 |      | 2.0  | 2.4  | V    | IF=20mA   |  |
| Reverse Current                 |                   | IR                 |      |      | 100  | μA   | VR=5V     |  |

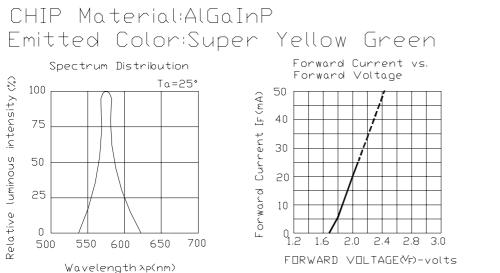


# EVERLIGHT ELECTRONICS CO., LTD.

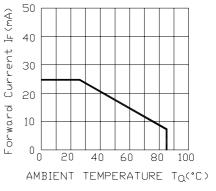
# Technical Data Sheet 0.56" Triple Digit Displays

### ELT-511SYGWA/S530-E2

Typical Electro-Optical Characteristic Curves:



#### Forward Current Derating Curve



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# EVERLIGHT ELECTRONICS CO., LTD.

## Technical Data Sheet 0.56" Triple Digit Displays

### ELT-511SYGWA/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<br>Hours/Cycle | Sample Size | Failure<br>Judgment<br>Criteria | Ac/Re |
|----|-------------------------------------|---|---------------------|-------------|---------------------------------|-------|
| 1  | Solder Heat                         | TEMP:260℃ ±5℃                                 | 5 SEC               | 76 PCS      |                                 | 0/1   |
| 2  | Temperature Cycle                   | H:+85°C 30min<br>∫ 5 min<br>L:-55°C 30min     | 50 CYCLE            | 76 PCS      |                                 | 0/1   |
| 3  | Thermal Shock                       | H : +100°C 5min<br>∫ 10 sec<br>L : -10°C 5min | 50 CYCLE            | 76 PCS      | Iv≦Ivt*0.5                      | 0/1   |
| 4  | High Temperature Storage            | TEMP : 100°C                                  | 1000 HRS            | 76 PCS      | or<br>Vf≧U<br>or                | 0/1   |
| 5  | Low Temperature Storage             | TEMP : -55°C                                  | 1000 HRS            | 76 PCS      | Vf≦L                            | 0/1   |
| 6  | DC Operating Life                   | IF = 10 mA                                    | 1000 HRS            | 76 PCS      |                                 | 0/1   |
| 7  | High Temperature / High<br>Humidity | 85°C/85% RH                                   | 1000 HRS            | 76 PCS      |                                 | 0/1   |

Note: Ivt: The test Iv value of the chip before the reliablility test

Iv : The test value of the chip that has completed the reliablility test

- U: Upper Specification Limit
- L: Lower Specification Limit



## Technical Data Sheet 0.56" Triple Digit Displays

### ELT-511SYGWA/S530-E2

#### Packing Quantity Specification 1. 13PCS/tube, 54 tubes/box

2. 4Boxes/Carton

Label Form Specification

RI G



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.

3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT' sconsent.

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