



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDD-305-017 REV: 1.0

0.3" Dual Digit Displays

MODEL NO : ELD-305SURWA/S530-A2 ECN :            Page: 1/5

■ Features :

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.

■ Applications:

- Audio equipment
- Instrument panels
- Digital readout display

■ Description :

- The ELD-305 series is a large 7.62mm (0.3")high seven segment display design for viewing distances up to 7 meters.
- These displays provide excellent reliability in bright ambient light.
- These device is made with white segments and gray surface.

| PART NO              | CHIP     |               | C.C. or C.A. |
|----------------------|----------|---------------|--------------|
|                      | Material | Emitted Color |              |
| ELD-305SURWA/S530-A2 | AlGaInP  | Hyper Red     | C.C.         |

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<http://www.everlight.com>



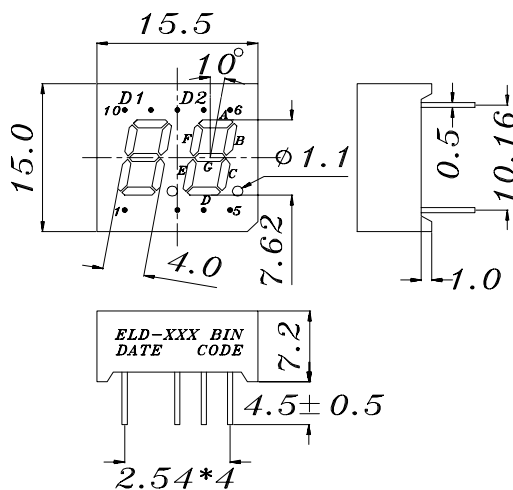
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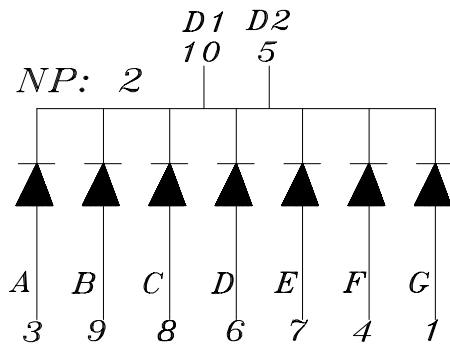
ECN : \_\_\_\_\_

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■ Package Dimension:



- COMMON CATHODE*
- 1 ANODE G
  - 2 NO PIN
  - 3 ANODE A
  - 4 ANODE F
  - 5 COMMON CATHODE D2
  - 6 ANODE D
  - 7 ANODE E
  - 8 ANODE C
  - 9 ANODE B
  - 10 COMMON CATHODE D1



■ NOTES:

1. All dimensions are 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       | 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   |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | If(Peak) | 160         | mA   |

■ Electronic optical characteristics :

| Parameter                    |                   | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|------------------------------|-------------------|--------|------|------|------|------|-----------|
| Luminous                     | Per segment       | Iv     | 0.45 | 1.3  | ---- | mcd  | If=2mA    |
|                              |                   |        | 2.8  | 8.5  | ---- | mcd  | If=10mA   |
| Intensity                    | Per decimal point | Iv     | 0.07 | 0.75 | ---- | mcd  | If=2mA    |
|                              |                   |        | 1.05 | 4.00 | ---- | mcd  | If=10mA   |
| Peak Wavelength              |                   | λ p    | ---- | 632  | ---- | nm   | If=20mA   |
| Dominant Wavelength          |                   | λ d    | ---- | 624  | ---- | nm   | If=20mA   |
| Spectrum Radiation Bandwidth |                   | Δ λ    | ---- | 20   | ---- | nm   | If=20mA   |
| Forward Voltage              |                   | Vf     | ---- | 2.0  | 2.4  | V    | If=20mA   |
| Reverse Current              |                   | Ir     | ---- | ---- | 10   | μ A  | Vr=5V     |



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**Reliability test item and condition:**

| 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<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      | 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   |



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## Typical Electro-Optical Characteristic Curves:

