



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-322-016 REV: 1.0

## 0.3" Single Digit Displays

MODEL NO : ELS-322SURWA/S530-A2 ECN : \_\_\_\_\_ Page: 1/5

### ■ Features :

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

### ■ Applications:

- Audio equipment
- Instrument panels
- Digital read out display

### ■ Description :

- The ELS-322series 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 |              |
| ELS-322SURWA/S530-A2 | AlGaInP  | Hyper Red     | C.A.         |

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL : 886-2-2267-2000,2267-9936

FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

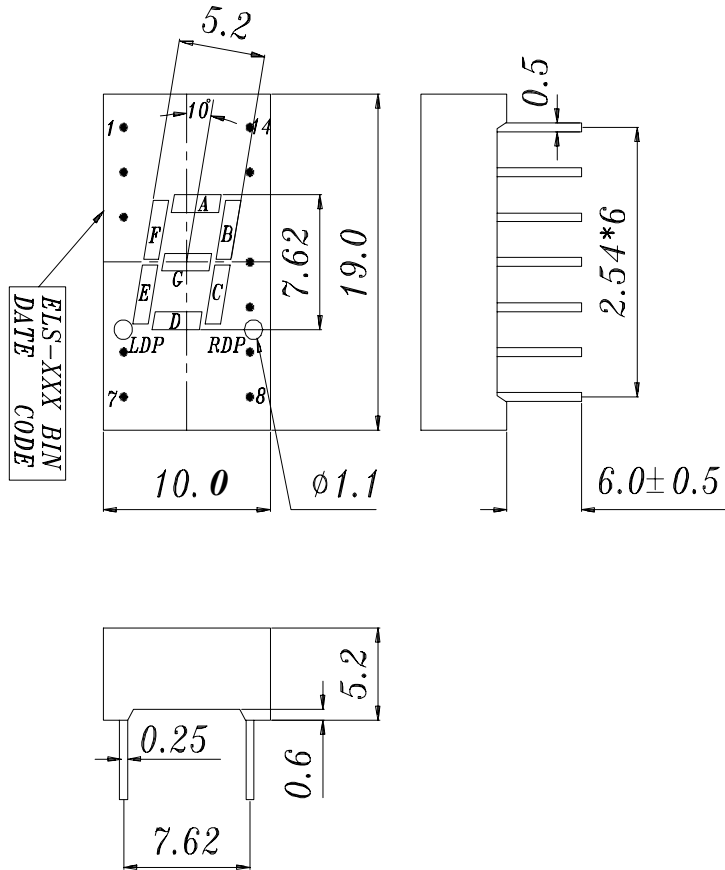


Device Number : DDS-322-016 REV: 1.0

## 0.3" Single Digit Displays

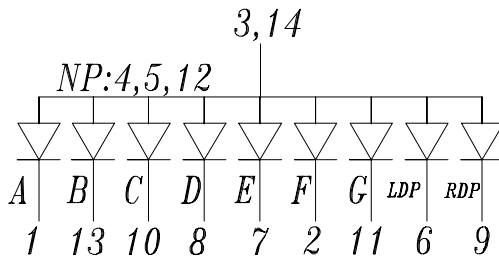
MODEL NO : ELS-322SURWA/S530-A2 ECN : \_\_\_\_\_ Page: 2/5

### Package Dimension:



*COMMON ANODE*

|    |              |     |
|----|--------------|-----|
| 1  | CATHODE      | A   |
| 2  | CATHODE      | F   |
| 3  | COMMON ANODE |     |
| 4  | NO PIN       |     |
| 5  | NO PIN       |     |
| 6  | CATHODE      | LDP |
| 7  | CATHODE      | E   |
| 8  | CATHODE      | D   |
| 9  | CATHODE      | RDP |
| 10 | CATHODE      | C   |
| 11 | CATHODE      | G   |
| 12 | NO PIN       |     |
| 13 | CATHODE      | B   |
| 14 | COMMON ANODE |     |



### 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.



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-322-016 REV: 1.0

0.3" Single Digit Displays

MODEL NO : ELS-322SURWA/S530-A2 ECN : \_\_\_\_\_ Page: 3/5

## 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 Intensity           | Per segment       | Iv               | 0.45 | 1.6  | ---- | mcd     | If=2mA    |
|                              |                   |                  | 4.00 | 10.6 | ---- | mcd     | If=10mA   |
|                              | Per decimal point |                  | 0.28 | 0.45 | ---- | mcd     | If=2mA    |
|                              |                   |                  | 1.05 | 5.6  | ---- | mcd     | If=10mA   |
| Peak Wavelength              |                   | $\lambda p$      | ---- | 632  | ---- | nm      | If=20mA   |
| Dominant Wavelength          |                   | $\lambda d$      | ---- | 624  | ---- | 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               | ---- | ---- | 10   | $\mu A$ | Vr=5V     |



Device Number : DDS-322-016 REV: 1.0

0.3" Single Digit Displays

MODEL NO : ELS-322SURWA/S530-A2 ECN : \_\_\_\_\_ Page: 4/5

■ 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   |



Device Number : DDS-322-016 REV: 1.0

0.3" Single Digit Displays

MODEL NO: ELS-322SURWA/S530-A2 ECN :                      Page: 5/5

## Typical Electro-Optical Characteristic Curves:

