



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-432-025 REV: 1.0

0.39" Single Digit Displays

MODEL NO : ELS-432SYGWA/S530-E1 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-432 series is a large 10.0mm (0.39")high seven segment display design for viewing distances up to 7 meters.
- These displays provide excellent readability 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-432SYGWA/S530-E1 | AlGaInP  | Super Yellow Green | 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

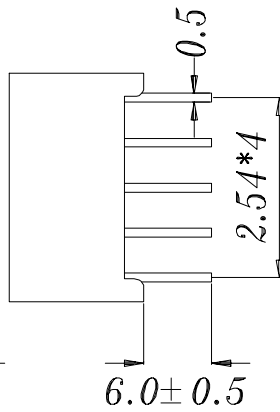
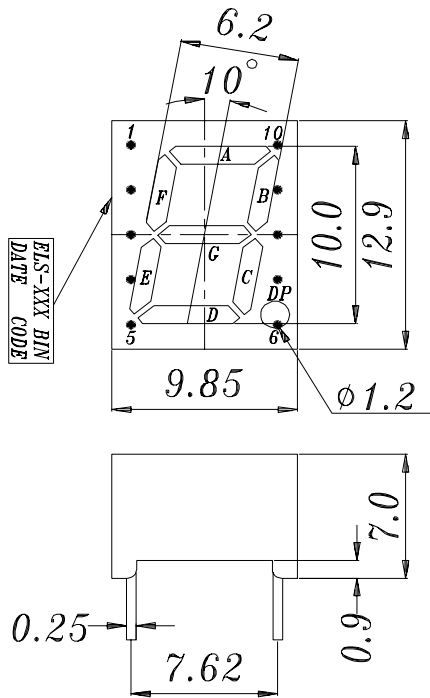
FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

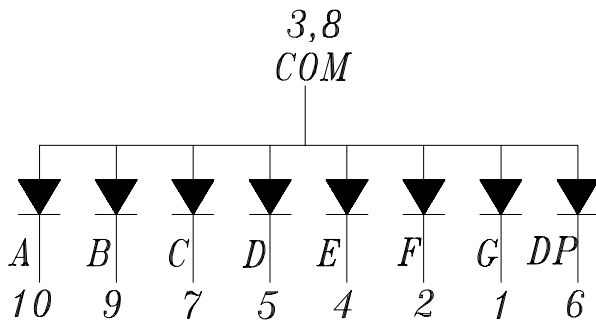


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■ Package Dimension:



- COMMON ANODE**
- 1 CATHODE G
  - 2 CATHODE F
  - 3 COMMON ANODE
  - 4 CATHODE E
  - 5 CATHODE D
  - 6 CATHODE DP
  - 7 CATHODE C
  - 8 COMMON ANODE
  - 9 CATHODE B
  - 10 CATHODE A



■ 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 | 1.5  | ---- | mcd  | If=2mA    |
|                              |                   |                  | 4.00 | 10.0 | ---- | mcd  | If=10mA   |
| Intensity                    | Per decimal point |                  | 0.11 | 0.45 | ---- | mcd  | If=2mA    |
|                              |                   |                  | 1.40 | 4.00 | ---- | mcd  | If=10mA   |
| Peak Wavelength              |                   | $\lambda p$      | ---- | 575  | ---- | nm   | If=20mA   |
| Dominant Wavelength          |                   | $\lambda d$      | ---- | 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               | ---- | ---- | 10   | V    | Vr=5V     |



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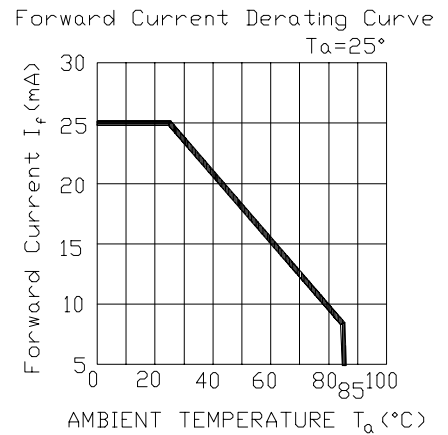
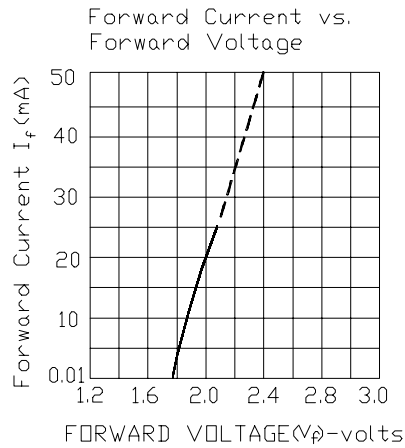
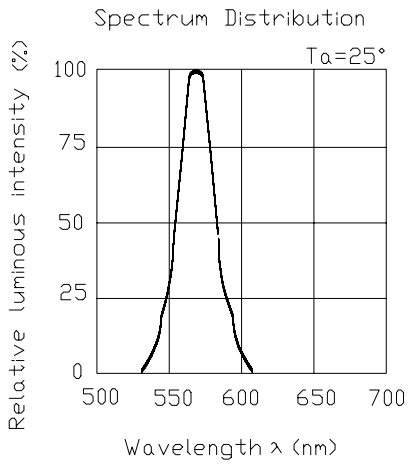
ECN :                     

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■ Typical Electro-Optical Characteristic Curves:

SYG





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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   |
|  |                                  |   |                  |             |       |