



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-806-003 REV: 1.0

## 0.8" Single Digit Multi-Color Display

MODEL NO : ELS-806EGWB 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 ELS-806 series is a large 20.4mm (0.8")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 black surface.

| PART NO     |   | CHIP      |               | C.C. or C.A. |
|-------------|---|-----------|---------------|--------------|
|             |   | Material  | Emitted Color |              |
| ELS-806EGWB | E | GaAsP/GaP | Orange        | C.A.         |
|             | G | GaP       | Green         |              |

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TS99025 C991509

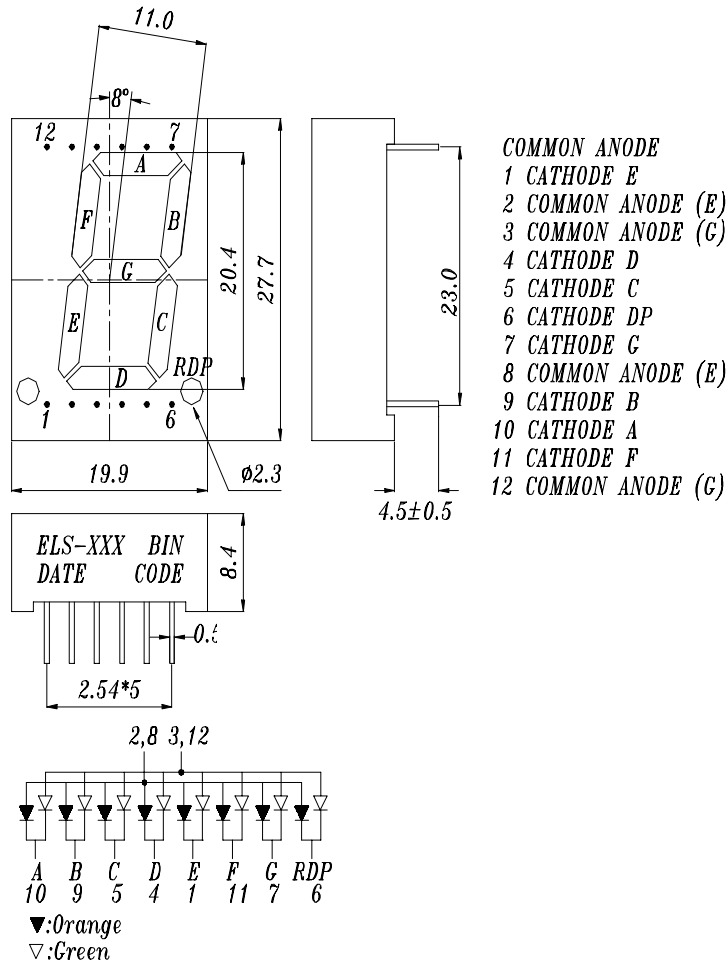


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### Package Dimension:



### 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       | 30          | mA   |
| Operating Temperature                  | Topr     | -40 to +85  | °C   |
| Storage Temperature                    | Tstg     | -40 to +100 | °C   |
| Soldering Temperature                  | Tsol     | 260 ± 5     | °C   |
| Power Dissipation                      | Pd       | 100         | 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         | Iv(E)   | 2.0  | 2.8  | ---- | mcd  | If=10mA   |
|                              |             | Iv(G)   | 2.80 | 4.00 | ---- |      |           |
|                              | Per decimal | Iv(E)   | 0.45 | 0.75 | ---- |      |           |
|                              |             | Iv(G)   | 0.75 | 1.05 | ---- |      |           |
| Peak Wavelength              |             | λ p(E)  | ---- | 635  | ---- | nm   | If=20mA   |
|                              |             | λ p(G)  | ---- | 565  | ---- | nm   | If=20mA   |
| Dominant Wavelength          |             | λ d(E)  | ---- | 625  | ---- | nm   | If=20mA   |
|                              |             | λ d(G)  | ---- | 570  | ---- | nm   | If=20mA   |
| Spectrum Radiation Bandwidth |             | △ λ (E) | ---- | 45   | ---- | nm   | If=20mA   |
|                              |             | △ λ (G) | ---- | 30   | ---- | nm   | If=20mA   |
| Forward Voltage              |             | Vf(E)   | 1.7  | 2.0  | 2.6  | V    | If=20mA   |
|                              |             | Vf(G)   | 1.7  | 2.1  | 2.4  | V    | If=20mA   |
| Reverse Current              |             | Ir      | ---- | ---- | 10   | μ A  | Vr=5V     |

冷熱衝擊  
溫度循環



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| 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 = 20 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:

