



## 2.0" Single Digit Displays

PART NO. : ELS-2016IDR ECN :            Page: 1/5

### ■ Features :

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

### ■ Applications:

- Audio equipment
- Instrument panels
- Digital read out display

### ■ Descriptions :

- The ELS-2016 series is a large 50.8mm (2.0")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 red segments and red surface.

| PART NO.    | Chip      |               |
|-------------|-----------|---------------|
|             | Material  | Emitted Color |
| ELS-2016IDR | GaAsP/GaP | Hi-Eff Red    |

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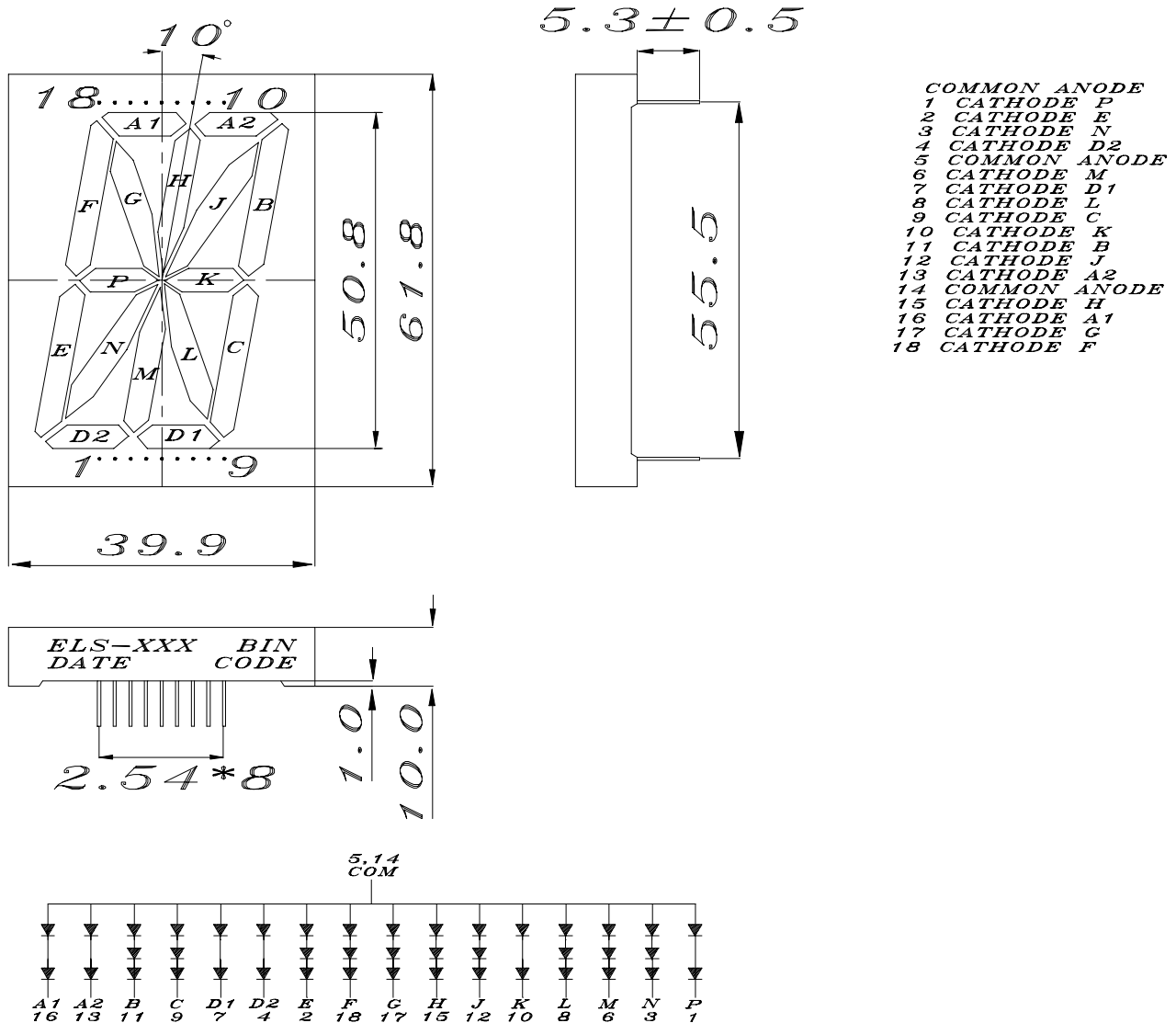
<http://www.everlight.com>



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■ Package Dimensions:



■ 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.



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDS-201-001 REV: 1

2.0" Single Digit Displays

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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 segment       | Iv     | 2.8  | 4.5  | ---- | mcd  | IF=10mA   |
|                              | Per decimal point |        | 0.7  | 1.5  | ---- |      |           |
| Peak Wavelength              |                   | λ p    | ---- | 635  | ---- | nm   | IF=20mA   |
| Dominant Wavelength          |                   | λ d    | ---- | 625  | ---- | nm   | IF=20mA   |
| Spectrum Radiation Bandwidth |                   | △ λ    | ---- | 45   | ---- | nm   | IF=20mA   |
| Forward Voltage              |                   | VF     | 3.4  | 6.0  | 7.2  | V    | IF=20mA   |
| Reverse Current              |                   | IR     | ---- | ---- | 10   | μ A  | VR=5V     |

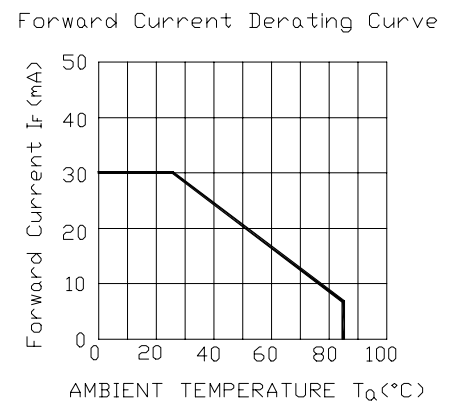
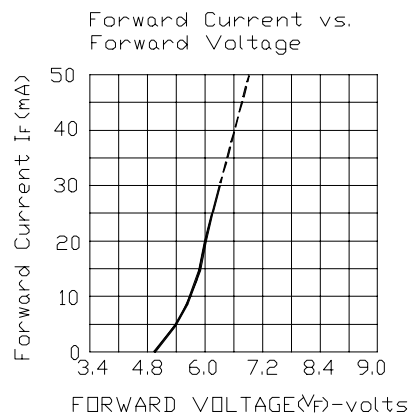
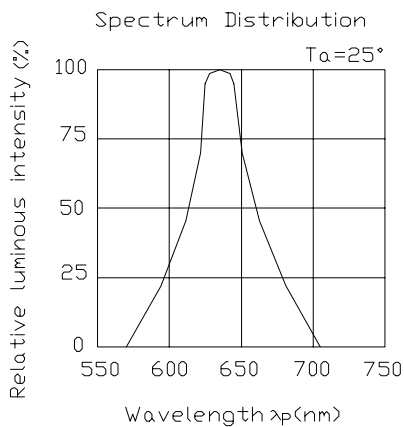


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## Typical Electro-Optical Characteristic Curves:

CHIP Material:GaAsP/GaP  
Emitted Color:Hi-Eff Red/Orange





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Device Number : CDDS-201-001 REV: 1

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■ Reliability test items and conditions:

| 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   |