



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDD-566-002 REV: 1

0.52" Dual Digit Displays

PART NO. : FND5910/D566IDR/L18 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 ELD-566 series is a large 13.2 mm (0.52")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 |
| FND5910/D566IDR/L18 | GaAsP/GaP | Hi-Eff Red |

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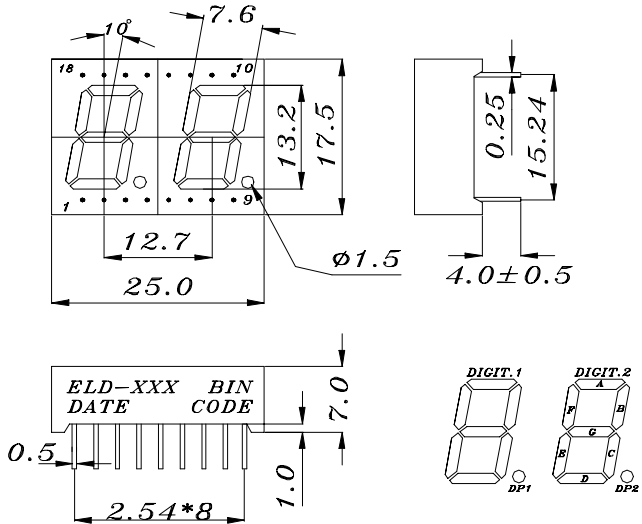
<http://www.everlight.com>

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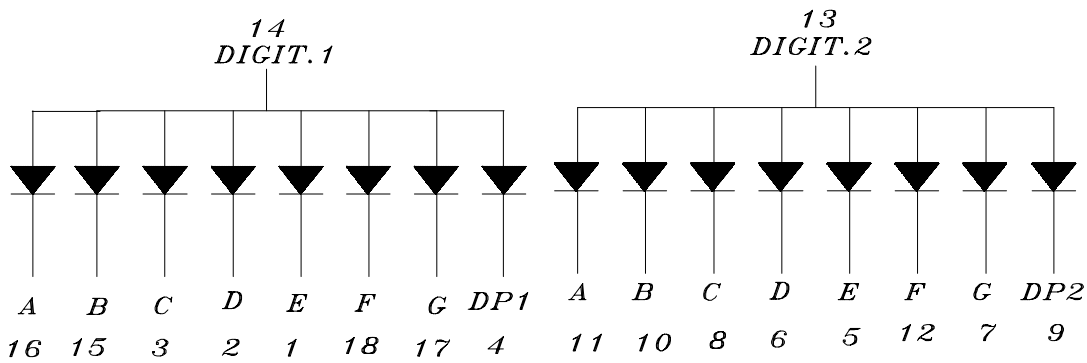
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Package Dimensions:



COMMON ANODE

- 1 CATHODE E
- 2 CATHODE D
- 3 CATHODE C
- 4 CATHODE DP1
- 5 CATHODE E
- 6 CATHODE D
- 7 CATHODE G
- 8 CATHODE C
- 9 CATHODE DP2
- 10 CATHODE B
- 11 CATHODE A
- 12 CATHODE F
- 13 COMMON ANODE DIGIT.2
- 14 COMMON ANODE DIGIT.1
- 15 CATHODE B
- 16 CATHODE A
- 17 CATHODE G
- 18 CATHODE F



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.



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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 | 0.75 | 2.0 | ---- | mcd | IF=10mA |
| | Per decimal point | | 0.3 | 0.6 | ---- | | |
| 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 | 1.7 | 2.0 | 2.4 | V | IF=20mA |
| Reverse Current | | IR | ---- | ---- | 10 | μ A | VR=5V |



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ECN :

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■ Typical Electro-Optical Characteristic Curves:

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

Spectrum Distribution
Ta=25°

| Wavelength λp (nm) | Relative luminous intensity (%) |
|--------------------|---------------------------------|
| 550 | 0 |
| 600 | 25 |
| 630 | 100 |
| 650 | 75 |
| 700 | 25 |
| 750 | 0 |

Forward Current vs. Forward Voltage

| FORWARD VOLTAGE Vp (volts) | Forward Current If (mA) |
|----------------------------|-------------------------|
| 1.2 | 0 |
| 1.6 | 0 |
| 2.0 | 10 |
| 2.2 | 20 |
| 2.4 | 40 |
| 2.6 | 50 |

Forward Current Derating Curve

| AMBIENT TEMPERATURE Ta (°C) | Forward Current If (mA) |
|-----------------------------|-------------------------|
| 0 | 30 |
| 25 | 30 |
| 50 | 20 |
| 75 | 10 |
| 90 | 0 |



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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 ∫ 5 min L : -55°C 30min | 50 CYCLE | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : +100°C 5min ∫ 10 sec 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 |