

DEVICE NUMBER : DLE-912-183

ECN :

REV : 1.0

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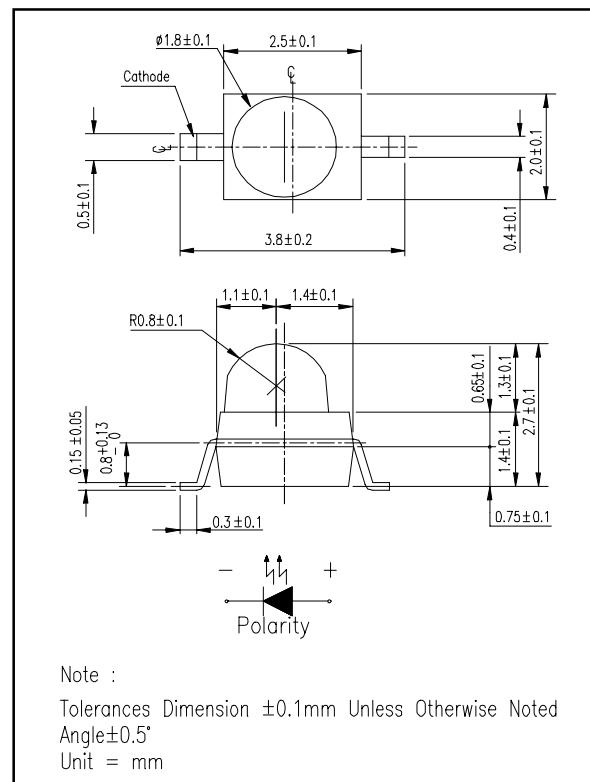
1.8mm Round Subminiature "Gull Wing" Lead LEDs

PART NO. : 91-21SURC/S530-A2/TR7

■ Features :

- Package in 12mm tape on 7" diameter reels.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- IC compatible.
- EIA std package.
- Mono-color type.

■ Package Dimensions :



■ Descriptions :

- Besides, light weight makes them ideal for miniature applications, ect.
- Furthermore by automation assembly machines the accuracy is anticipated.

■ Applications :

- Small indicator for outdoor applications.
- Flat backlight for LCD, switches and symbols.
- Indicator and backlight in offic equipment.
- Indicator and backlight for battery driven equipment.
- Indicator and backlight for audio and video equipment.
- Automotive : backlighting in dashboards and switches.
- Telecommunication : indicator and backlighting in telephone and fax.
- General use.

| PART NO. | Chip | | Lens Color |
|-----------------------|----------|---------------|--------------|
| | Material | Emitted Color | |
| 91-21SURC/S530-A2/TR7 | AlGaInP | Hyper Red | Red Diffused |

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

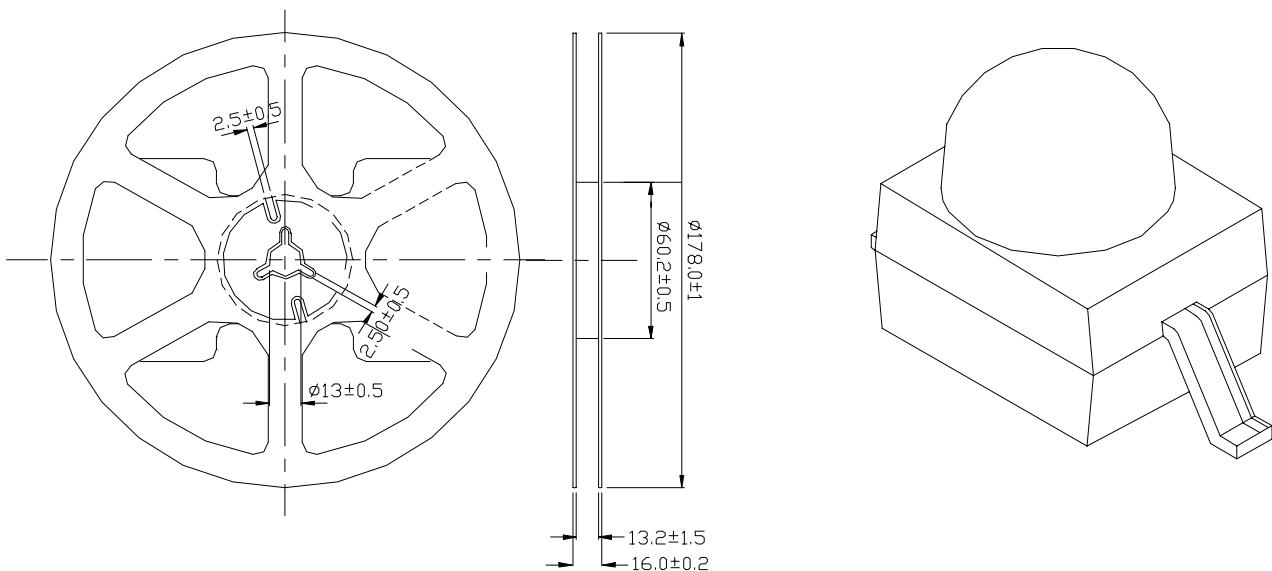
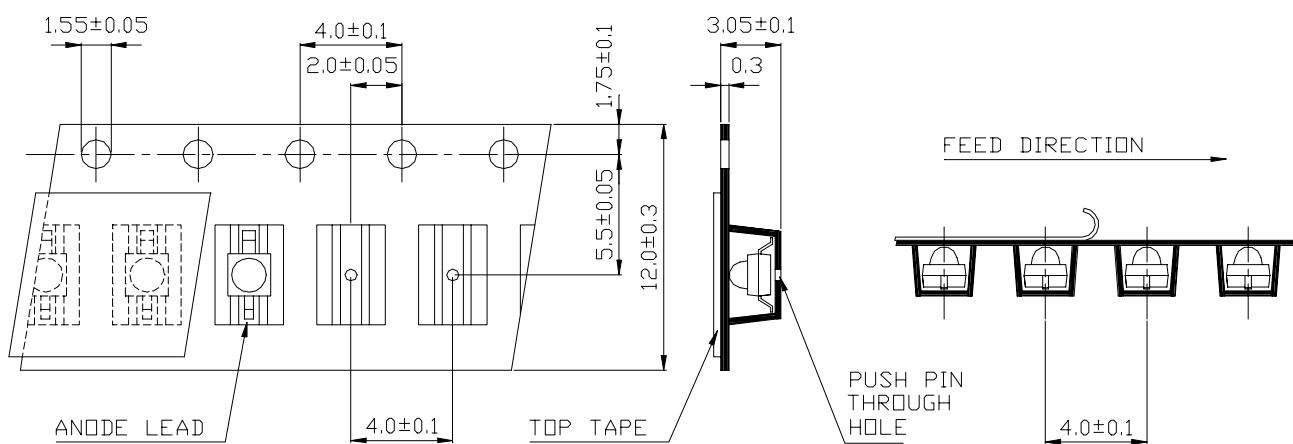
TEL : 886-2-2267-2000,2267-9936

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<http://www.everlight.com>

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PAGE : 2/5**1.8mm Round Subminiature "Gull Wing" Lead LEDs**PART NO. : 91-21SURC/S530-A2/TR7**■ Package Dimensions****■ Loaded Quantity Per Reel 1000 Pcs/Reel**

1. All dimensions are in millimeters.
2. Lead spacing is measured where the lead emerge from the package
3. Protruded resin under flange 1.5 mm (0.59") max.



EVERLIGHT ELECTRONICS CO.,LTD.

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■ Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|--|-----------------------|-------------------|------|
| Reverse Voltage | V _R | 5 | V |
| Forward Current | I _F | 25 | mA |
| Operating Temperature | T _{opr} | -40 ~ +85 | °C |
| Storage Temperature | T _{tsg} | -40 ~ +100 | °C |
| Soldering Temperature | T _{sol} | 260 ± 5 for 5 sec | °C |
| Electrostatic Discharge | ESD | 2000 | V |
| Power Dissipation | P _d | 60 | mW |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | I _F (Peak) | 160 | mA |

■ Electronic Optical Characteristics :

| Parameter | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|------------------------------|----------------|------|------|------|------|----------------------|
| Luminous Intensity | I _v | ---- | 27 | ---- | mcd | I _F = 2mA |
| Luminous Intensity | I _v | 198 | 482 | ---- | mcd | |
| Viewing Angle | 2θ 1/2 | ---- | 25 | ---- | deg | |
| Peak Wavelength | λ _p | ---- | 632 | ---- | nm | |
| Dominant Wavelength | λ _d | ---- | 624 | ---- | nm | |
| Spectrum Radiation Bandwidth | △λ | ---- | 20 | ---- | nm | |
| Forward Voltage | V _F | ---- | 2.0 | 2.4 | V | |
| Reverse Current | I _R | ---- | ---- | 10 | μA | |

V_R=5V

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■ Reliability Test Items And Conditions

| NO. | Item | Test Conditions | Test Hours/ Cycle | Sample Size | Ac/Re |
|-----|----------------------------------|---|----------------------|----------------|-------|
| 1 | Solder Heat | TEMP : $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ | 5 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H : $+85^{\circ}\text{C}$ 30 min ↓ L : -55°C 30 min | 5 min 50 CYCLE | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : $+100^{\circ}\text{C}$ 5 min ↓ L : -10°C 30 min | 10 sec 50 CYCLE | 76 PCS | 0/1 |
| 4 | High Temperature Storage | TEMP. : $+100^{\circ}\text{C}$ | 1000 HRS | 76 PCS | 0/1 |
| 5 | Low Temperature Storage | TEMP. : -55°C | 1000 HRS | 76 PCS | 0/1 |
| 6 | DC Operating Life | I _F = 20 mA | 1000 HRS | 76 PCS | 0/1 |
| 7 | High Temperature / High Humidity | 85°C / 85% R.H. | 1000 HRS | 76 PCS | 0/1 |

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■ Typical Electro-Optical Characteristic Curves

