



EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-912-234REV : 1.1ECN : PAGE : 1/4

1.8mm Round Subminiature Axial LEDs

PART NO : 91-21SURC/S530-A2

Features :

- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- IC compatible.
- EIA std package.
- Mono-color type.

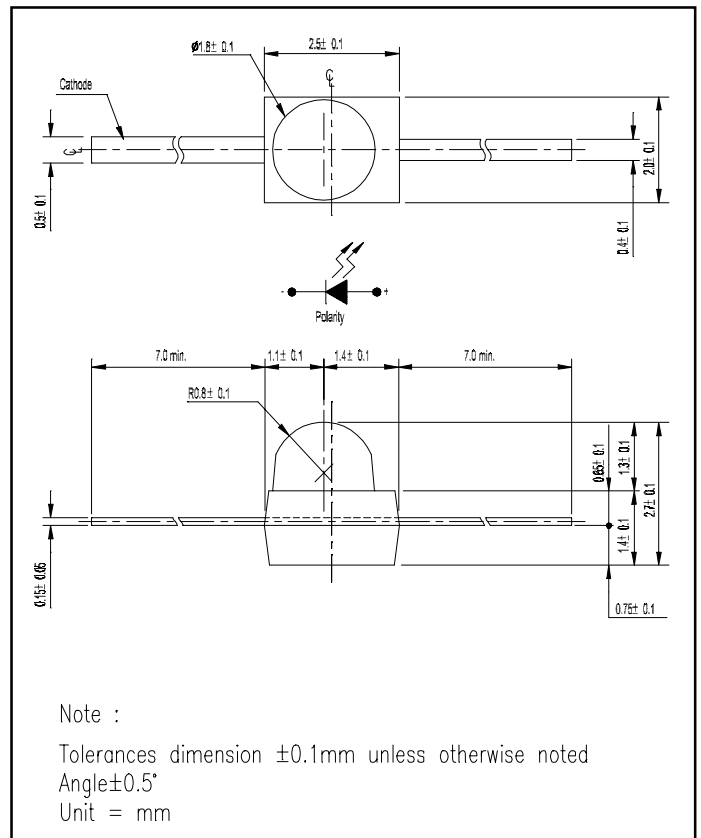
Descriptions :

- Besides, light weight makes them ideal for miniature applications, etc.
- 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 office 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.

Package Dimensions :



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

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>

**1.8mm Round Subminiature Axial LEDs**PART NO : 91-21SURC/S530-A2**■ Absolute Maximum Ratings at Ta = 25℃**

| Parameter | Symbol | Rating | Unit |
|---|----------|----------------------|------|
| Reverse Voltage | VR | 5 | V |
| Forward Current | IF | 25 | mA |
| Operating Temperature | Topr | -40 ~ +85 | ℃ |
| Storage Temperature | Tstg | -40 ~ +100 | ℃ |
| Soldering Temperature | Tsol | 260 ± 5 for 5 sec | ℃ |
| Electrostatic Discharge | ESD | 2000 | V |
| Power Dissipation | Pd | 60 | mW |
| Peak Forward Current(Duty 1/10 @ 1KHz) | IF(Peak) | 160 | mA |

■ Electronic Optical Characteristics :

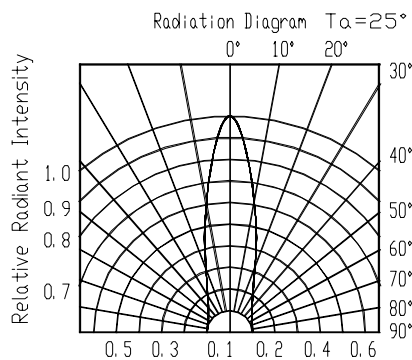
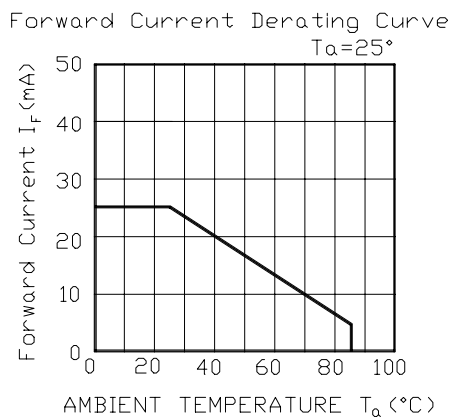
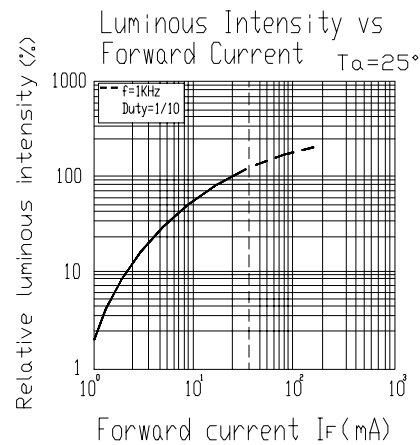
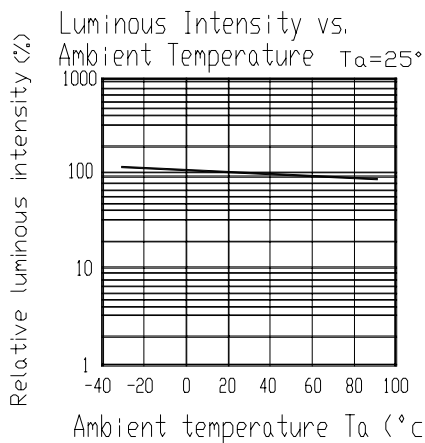
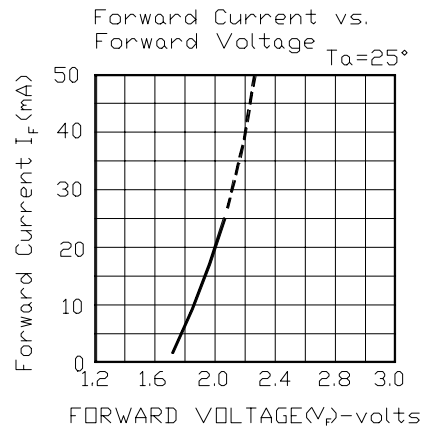
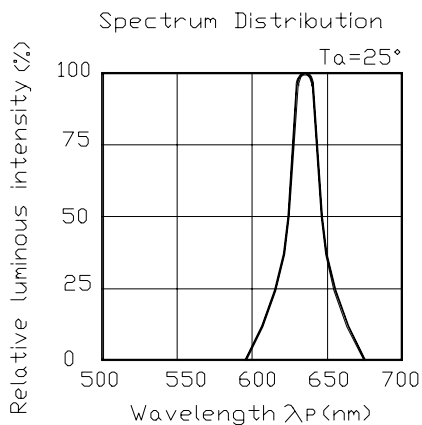
| Parameter | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|---------------------------------|---------|------|------|------|------|-----------|
| Luminous Intensity | Iv | ---- | 29 | ---- | mcd | IF = 2mA |
| Luminous Intensity | Iv | 198 | 482 | ---- | mcd | IF = 20mA |
| Viewing Angle | 2 θ 1/2 | ---- | 25 | ---- | deg | |
| Peak Wavelength | λ p | ---- | 632 | ---- | nm | |
| Dominant Wavelength | λ d | ---- | 624 | ---- | nm | |
| Spectrum Radiation Bandwidth | △ λ | ---- | 20 | ---- | nm | |
| Forward Voltage | VF | ---- | 2.0 | 2.4 | V | VR=5V |
| Reverse Current | IR | ---- | ---- | 10 | μ A | |



1.8mm Round Subminiature Axial LEDs

PART NO : 91-21SURC/S530-A2

Typical Electro-Optical Characteristic Curves





EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-912-234 REV : 1.1

ECN : PAGE : 4/4

1.8mm Round Subminiature Axial LEDs

PART NO : 91-21SURC/S530-A2

■ 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 30 min. ∫ 5 min. L : -55°C 30 min. | 50 CYCLES | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : +100°C 5 min. ∫ 10 sec. L : -10°C 30 min. | 50 CYCLES | 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% R H | 1000 HRS | 76 PCS | 0/1 |