



# EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-952-027 REV : 1.2

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## 1.8mm Round Subminiature" Yoke"Lead LEDs

MODEL NO : 95-21VYC/TR9

### Features :

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

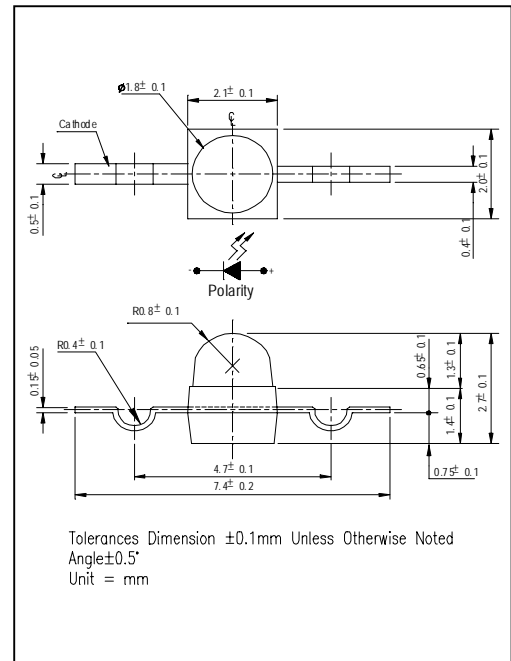
### Descriptions :

- 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 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.

### Package Dimensions :



| PART NO.     | Chip      |               | Lens Color  |
|--------------|-----------|---------------|-------------|
|              | Material  | Emitted Color |             |
| 95-21VYC/TR9 | GaAsP/GaP | Yellow        | Water Clear |

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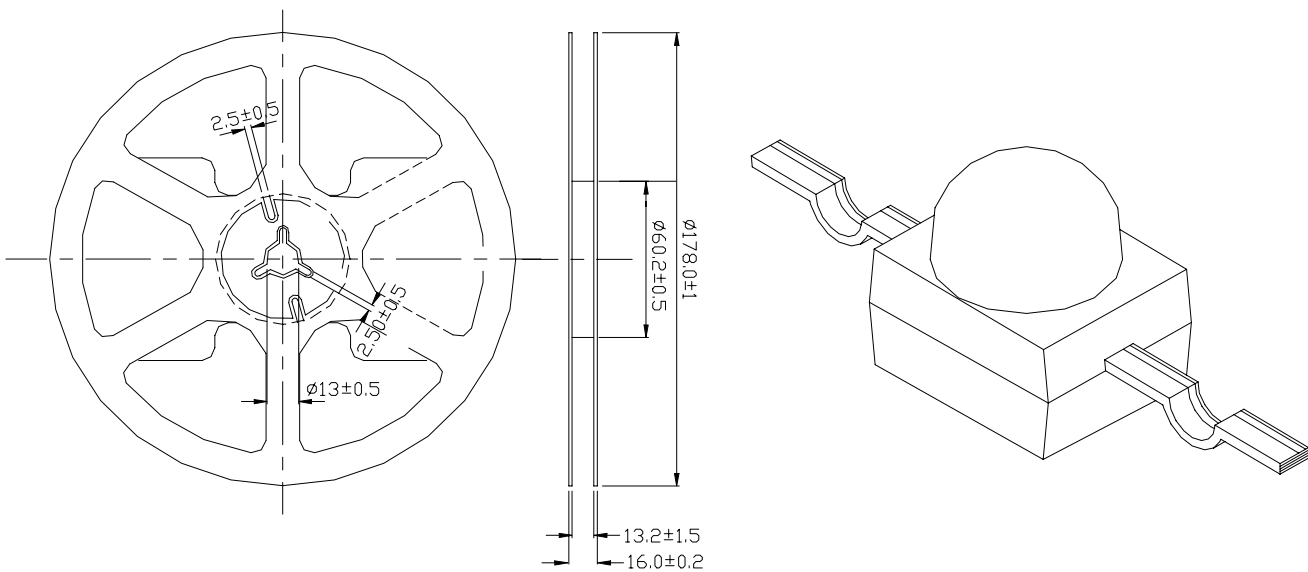
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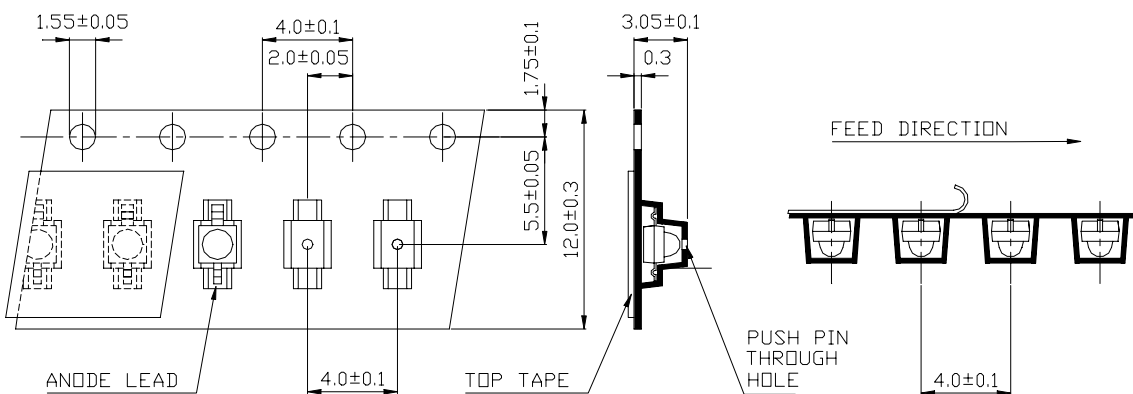
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### ■ Package Dimensions



### ■ 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.



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### ■ Absolute Maximum Ratings at T<sub>a</sub> = 25°C

| Parameter                              | Symbol                | Rating              | Unit |
|--|-----------------------|---------------------|------|
| Reverse Voltage                        | V <sub>R</sub>        | 5                   | V    |
| Forward Current                        | I <sub>F</sub>        | 30                  | mA   |
| Operating Temperature                  | T <sub>opr</sub>      | -40 ~ +85           | °C   |
| Storage Temperature                    | T <sub>stg</sub>      | -40 ~ +100          | °C   |
| Soldering Temperature                  | T <sub>sol</sub>      | 260 ± 5 (for 5 sec) | °C   |
| Power Dissipation                      | P <sub>d</sub>        | 100                 | mW   |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | I <sub>F</sub> (Peak) | 160                 | mA   |

### ■ Electronic Optical Characteristics :

| Parameter                    | Symbol         | MIN. | TYP. | MAX. | Unit | Condition             |
|------------------------------|----------------|------|------|------|------|-----------------------|
| Luminous Intensity           | I <sub>v</sub> | 18   | 30   | ---- | mcd  | I <sub>F</sub> = 20mA |
| Viewing Angle                | 2θ 1/2         | ---- | 25   | ---- | deg  |                       |
| Peak Wavelength              | λ <sub>p</sub> | ---- | 585  | ---- | nm   |                       |
| Dominant Wavelength          | λ <sub>d</sub> | ---- | 590  | ---- | nm   |                       |
| Spectrum Radiation Bandwidth | Δλ             | ---- | 35   | ---- | nm   |                       |
| Forward Voltage              | V <sub>F</sub> | 1.7  | 2.0  | 2.4  | V    |                       |
| Reverse Current              | I <sub>R</sub> | ---- | ---- | 10   | μA   | V <sub>R</sub> =5V    |



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### ■ Reliability Test Items And Conditions

| NO. | Item                             | Test Conditions  | Test Hours/<br>Cycle | Sample<br>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<br>↑<br>5 min<br>↓<br>L : -55°C 30 min  | 50 CYCLE             | 76 PCS         | 0/1   |
| 3   | Thermal Shock                    | H : +100°C 5 min<br>↑<br>10 sec<br>↓<br>L : -10°C 30 min | 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                | I <sub>F</sub> = 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

