



# YETDA INDUSTRY LTD.

## Technical Data Sheet

**MODEL NO : Q3014R4-G**

**3014 Package 3.0\*1.4 mm Top LEDs**

**Features :**

- Lens Molding
- Compatible with automatic placement equipment
- Compatible with reflow solder process

**Applications :**

- Indicators
- Automotive : backlighting in dashboard and switch
- Backlight for LCD

| Dice material | Emitted color | Lens Color        |
|---------------|---------------|-------------------|
| AlGaInP       | Red           | Water transparent |

**Electrical/Optical Characteristics(Ta=25°C)**

| Parameter                   | Test Condition | Symbol           | Value |     |     | Unit    |
|-----------------------------|----------------|------------------|-------|-----|-----|---------|
|                             |                |                  | Min   | Typ | Max |         |
| Wavelength at peak emission | IF=20mA        | $\Delta \lambda$ |       | 19  |     | nm      |
| Dominant wavelength         | IF=20mA        | $\lambda D$      | 615   | 620 | 630 | nm      |
| Forward voltage             | IF=20mA        | VF               | 1.8   | 2.0 | 2.4 | V       |
| Luminous intensity          | IF=20mA        | Iv               | 430   | 700 |     | mcd     |
| Viewing angle at 50% Iv     | IF=20mA        | $2 \theta 1/2$   |       | 120 |     | Deg     |
| Reverse current             | VR=5V          | IR               |       |     | 10  | $\mu$ A |

**Absolute Maximum Ratings(Ta=25°C)**

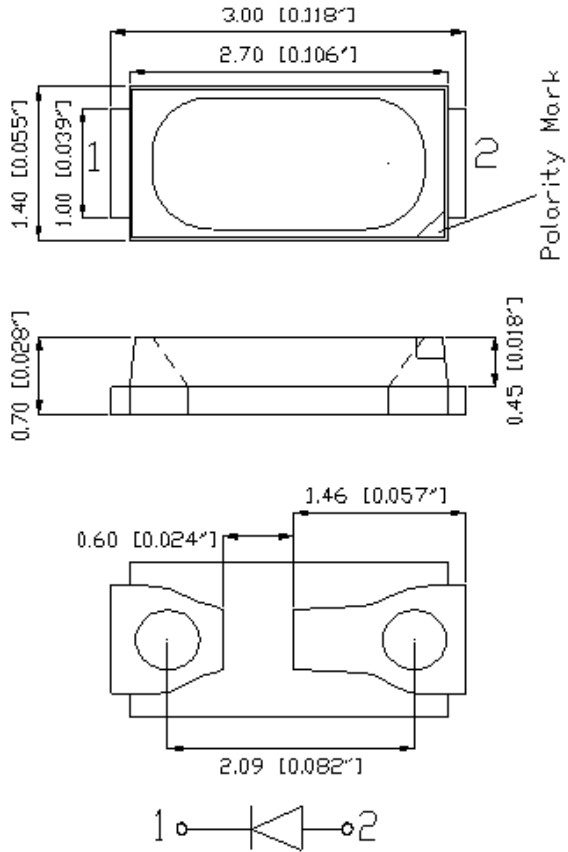
| Parameter                              | Symbol          | Value     | Unit |
|--|-----------------|-----------|------|
| Power dissipation                      | Pd              | 75        | mW   |
| Forward current                        | IF              | 30        | mA   |
| Reverse voltage                        | VR              | 5         | V    |
| Operating temperature range            | Top             | -40 ~+80  | °C   |
| Storage temperature range              | Tstg            | -40 ~+100 | °C   |
| Peak pulsing current (1/8 duty f=1kHz) | I <sub>fp</sub> | 125       | mA   |

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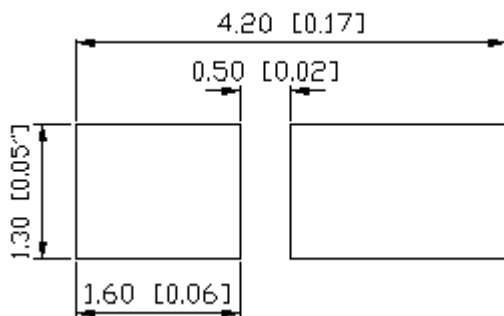


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## PACKAGING DIMENSIONS



## RECOMMEND PAD LAYOUT





Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

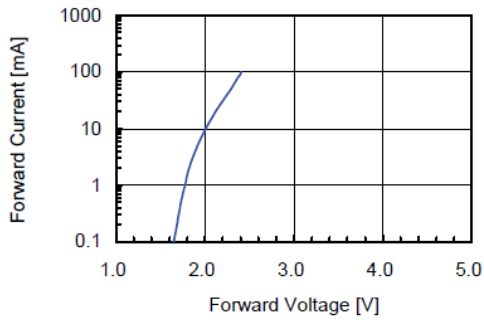


Fig 2. Relative Intensity vs. Forward Current

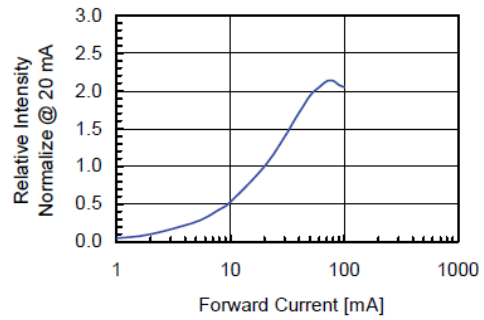


Fig 3. Forward Voltage vs. Temperature

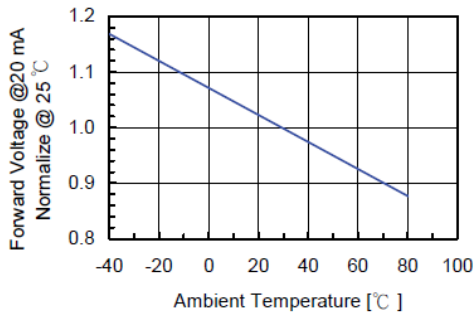


Fig 4. Relative Intensity vs. Temperature

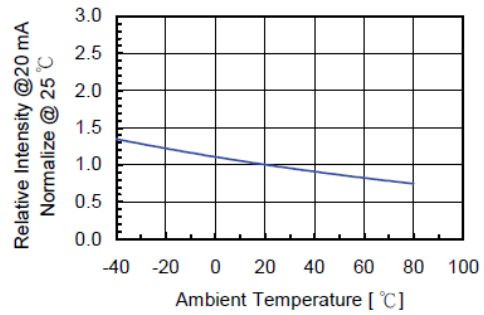
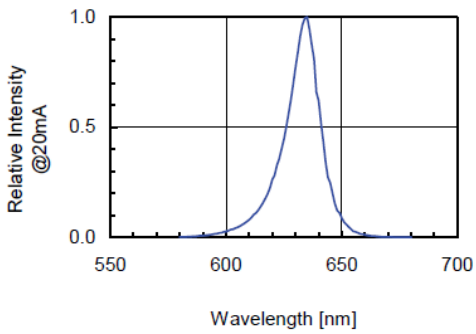


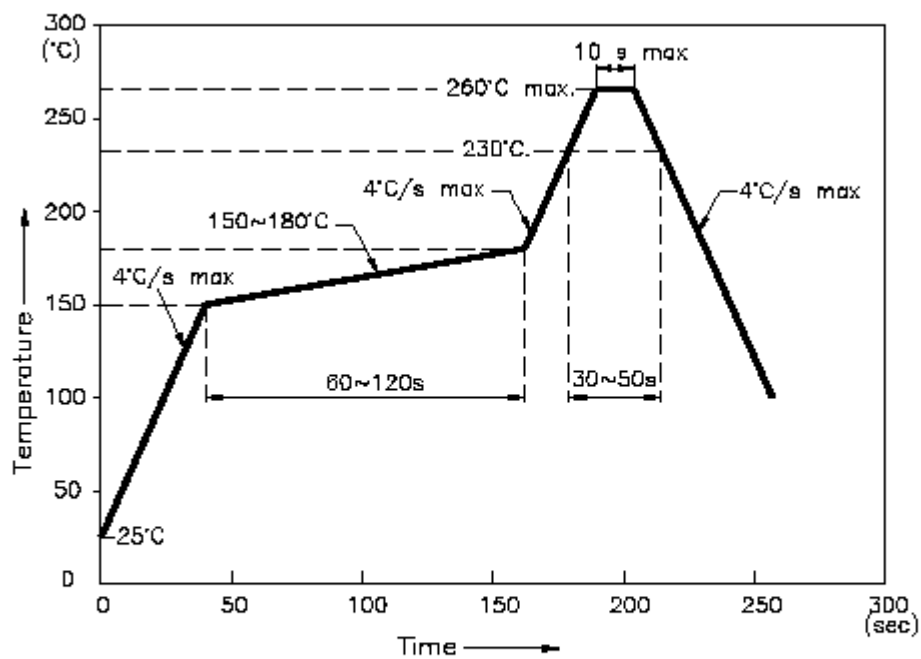
Fig 5. Relative Intensity vs. Wavelength





## Soldering Profile

Reflow Soldering Profile For Lead-free SMT Process.



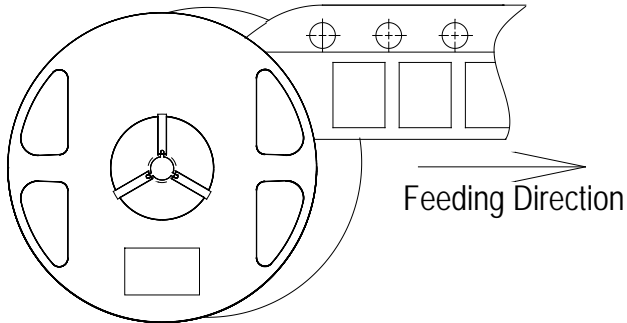
### NOTES:

1. We recommend the reflow temperature 245°C (+/- 5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

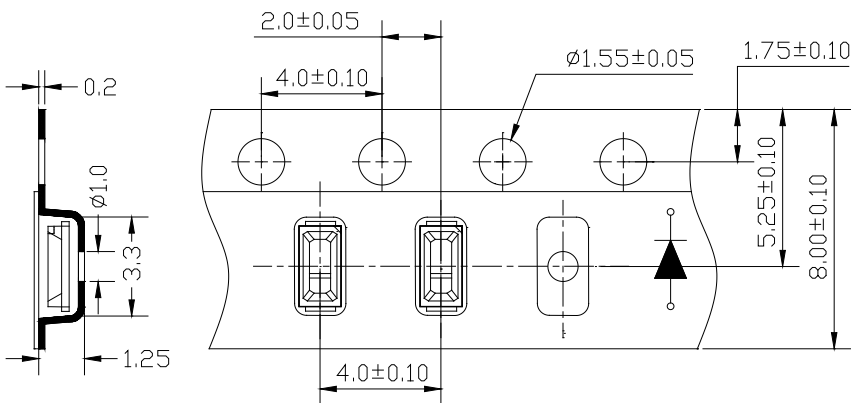


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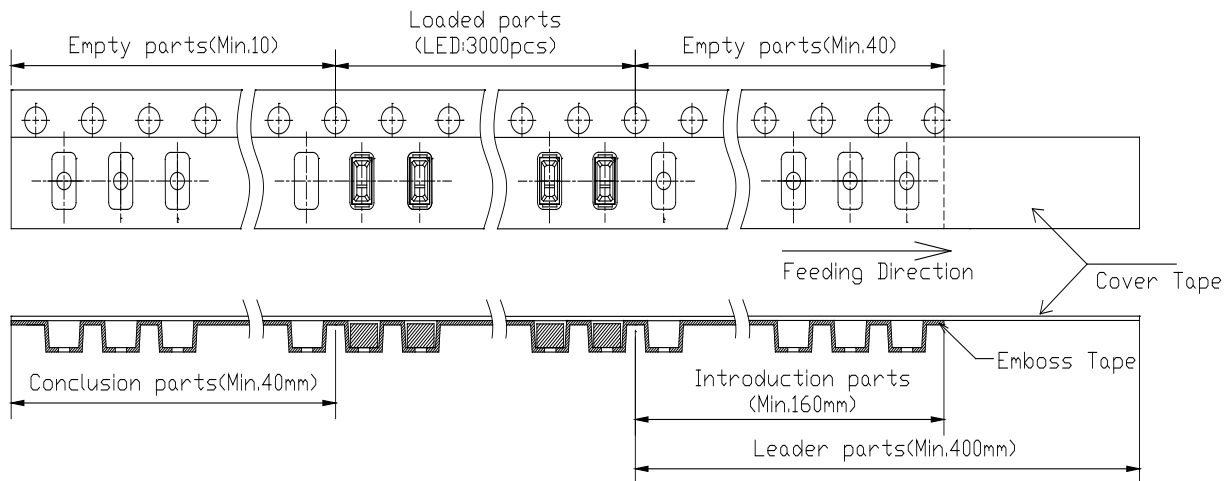
## ■Feeding Direction



## ■Dimensions of Tape (Unit: mm)



## ■Arrangement of Tape



Notes:

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole;
4. 3,000pcs/Reel