

### ❖ Features:

- 2.0\*1.25\*0.8 mm
- Mono-color type
- Soldering methods :All SMT assembly methods
- Comply ROHS standard

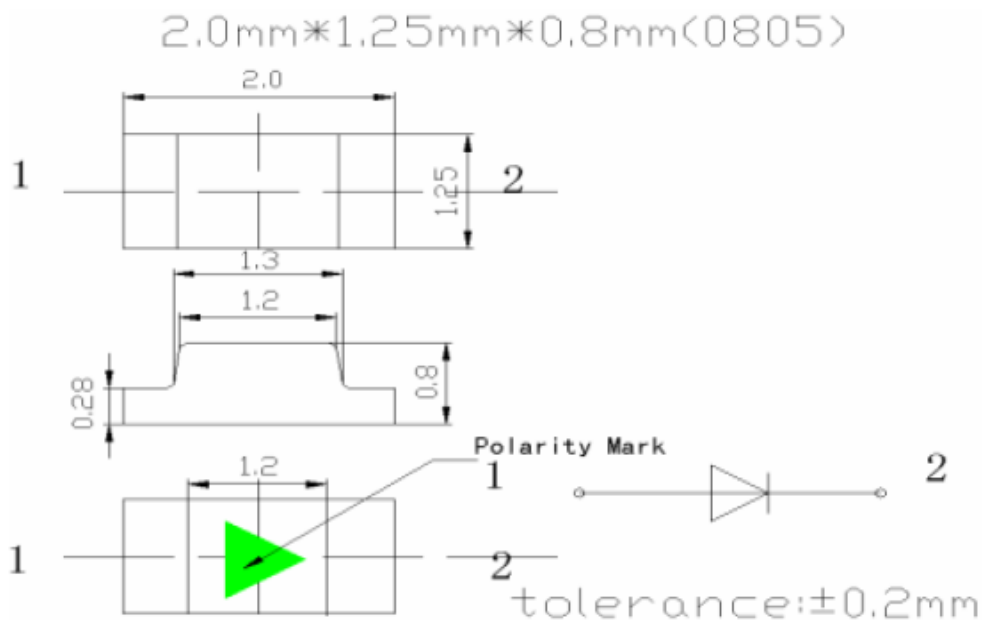
### ❖ Description

The Blue source color devices are made with InGaN on sapphire  
Light Emitting Diode

### ❖ Application

- Optical indicator
- Indicator and backlighting in telephone and fax
- Flat backlight for LCD, switch and symbol
- Light pipe application
- General use

### ❖ Package Dimensions



### NOTES:

1. All dimensions are in millimeter[unit];
2. Tolerance is ±0.05mm unless other specified;
3. Specifications are subject to change without notice.

| Emitted Color | Len's Color | Chip Material |
|---------------|-------------|---------------|
| Warm White    | Yellow      | InGaN         |

### ✧ Absolute Maximum Ratings(Ta=25°C)

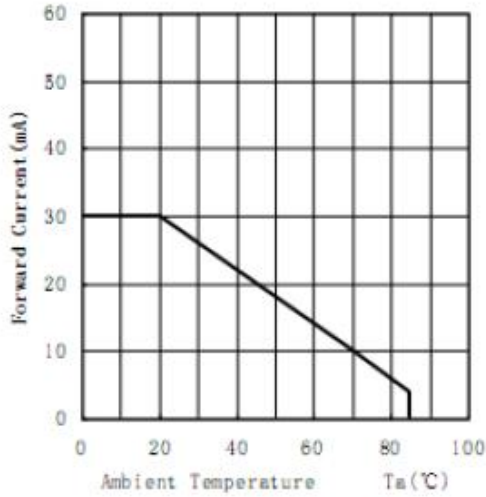
| Item  | Symbol            | Maximum             | Unit |
|---|-------------------|---------------------|------|
| Power Dissipation                                       | PD                | 111                 | mW   |
| Continuous Forward Current                              | I <sub>Fmax</sub> | 30                  | mA   |
| Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width) | I <sub>FP</sub>   | 125                 | mA   |
| Reverse Voltage   | V <sub>R</sub>    | 5                   | V    |
| Operating Temperature Range                             | T <sub>opr</sub>  | -40 to+85           | °C   |
| Storage Temperature Range                               | T <sub>stg</sub>  | -40 to+85           | °C   |
| Lead Solder Temperature                                 | T <sub>sol</sub>  | 260°C for 3 seconds |      |

### ✧ Electrical/Optical Characteristics(Ta=25°C)

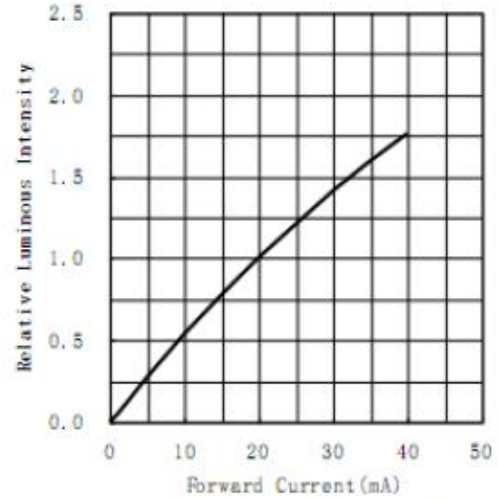
| Item               | Symbol            | Condition            | Min. | Typ. | Max  | Unit |
|--------------------|-------------------|----------------------|------|------|------|------|
| Forward Voltage    | V <sub>F</sub>    | I <sub>F</sub> =20mA | 2.8  | -    | 3.7  | V    |
| Luminous Intensity | I <sub>V</sub>    | I <sub>F</sub> =20mA | 300  | ---  | 500  | mcd  |
| Color Temperature  | T <sub>c</sub>    | I <sub>F</sub> =20mA | 2700 | ---  | 3300 | K    |
| Viewing Angle      | 2θ <sub>1/2</sub> | I <sub>F</sub> =20mA | --   | 140  | --   | Deg  |
| Reverse Current    | I <sub>R</sub>    | V <sub>R</sub> =5V   | --   | --   | 10   | uA   |

### ✧ Typical Electro-Optical Characteristics Curves

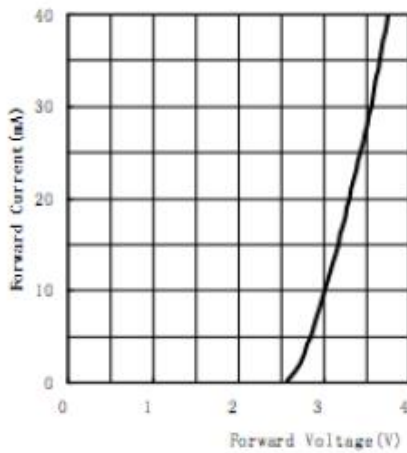
Ambient Temperature VS. Forward Current



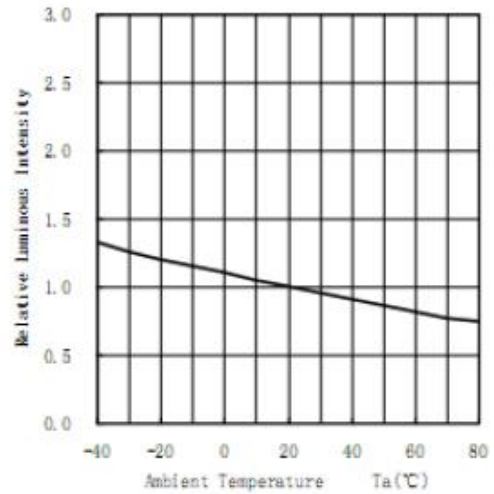
Forward Current VS. Relative Intensity



Forward Voltage VS. Forward Current



Ambient Temperature VS. Relative Intensity



Relative spectral emission

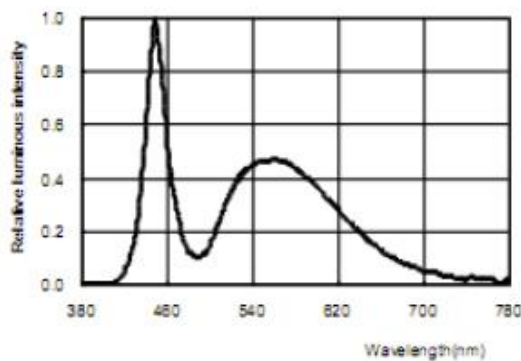
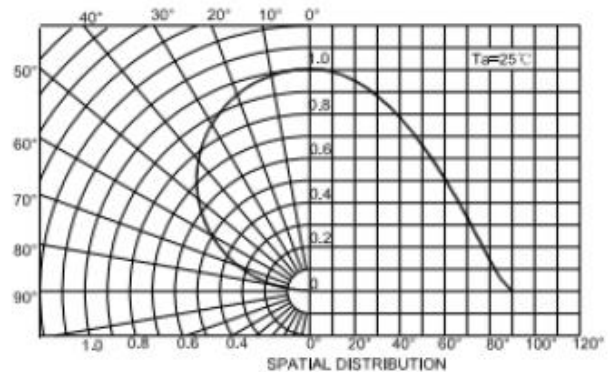


Diagram characteristics of radiation



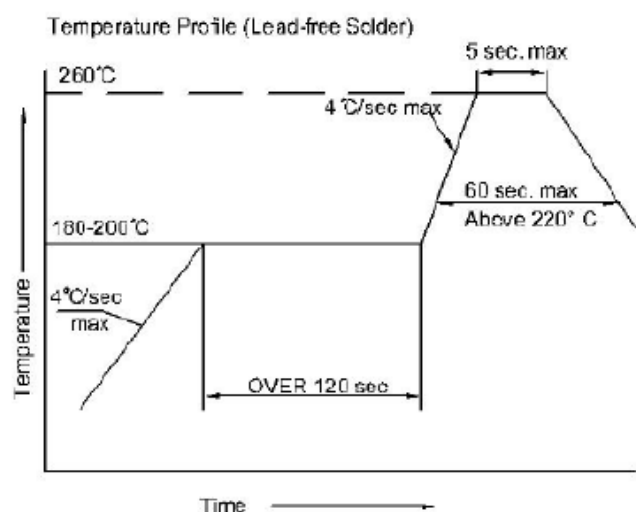
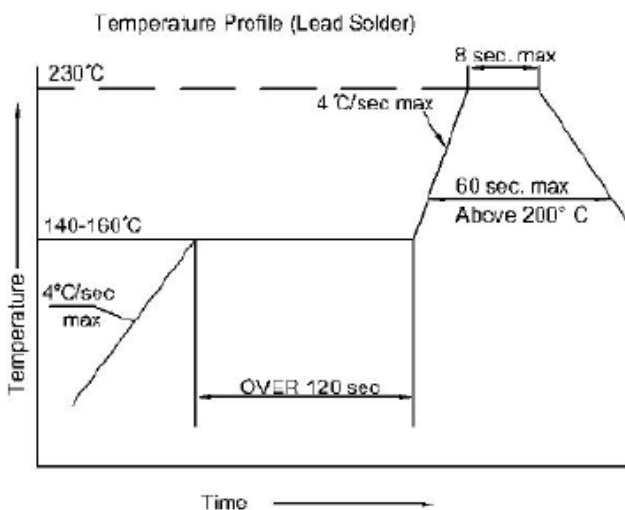
### ❖ Reliability Test Items And Conditions

| NO. | Item                    | Test Condition                                 | Test Hr/cycle/time | Sample Q'ty | Ac/Re |
|-----|-------------------------|--|--------------------|-------------|-------|
| 1   | Reflow                  | TEMP:260±5°C;<br>Min.5Sec                      | 6 min              | 22pcs       | 0/1   |
| 2   | Temperature Cycle       | H:+100°C 15mins<br>To(5mins)<br>L:-40°C 15mins | 300 cycles         | 22pcs       | 0/1   |
| 3   | Thermal Shock           | H:+100°C 15mins<br>To(5mins)<br>L:-40°C 15mins | 300 cycles         | 22pcs       | 0/1   |
| 4   | Low Temperature Storage | TEMP:-40°C                                     | 1000hrs            | 22pcs       | 0/1   |
| 5   | DC Operating Life       | IF=20MA  | 1000hrs            | 22pcs       | 0/1   |
| 6   | High Temperature        | 85°C   | 1000hrs            | 22pcs       | 0/1   |
| 7   | High Humidity           | 85%R.H.  | 1000hrs            | 22pcs       | 0/1   |

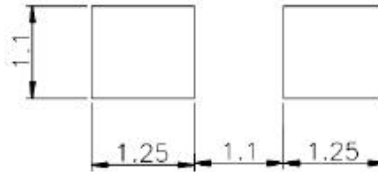
### ❖ SMT Reflow Soldering Instructions

Number of reflow process shall be than 2 times and cooling

Process to normal temperature is required between first and second soldering process



❖ Recommended Soldering Pad Dimensions



❖ Tape Specification: 3,000PCS per reel

