

# Preliminary

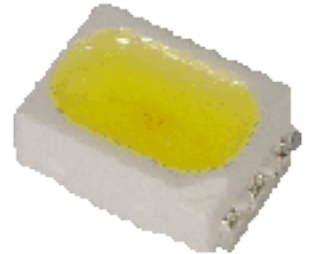
## PO-TS30200CN-001

### 1. SPECIFICATIONS

#### (1) Absolute Maximum Ratings

(Ta=25°C)

| Parameter                   | Symbol | MAX.                                                      | Unit |
|-----------------------------|--------|-----------------------------------------------------------|------|
| Continuous Forward Current  | If     | 20                                                        | mA   |
| Pulse Forward Current*      | Ifp    | 100                                                       | mA   |
| Reverse Voltage             | Vr     | 5                                                         | V    |
| Power Consumption           | Pc     | 75                                                        | mW   |
| Operating Temperature Range | Topr   | -40 ~ +85                                                 | °C   |
| Storage Temperature Range   | Tstg   | -40 ~ +100                                                | °C   |
| Electrostatic Discharge     | ESD    | 2000                                                      | V    |
| Soldering Temperature       | Tsld   | Reflow Soldering:240°C/10sec<br>Hand Soldering:350°C/3sec |      |



\*Duty 1/10 @ 1KHZ

#### (2) Electrical / Optical Characteristics

(Ta=25°C)

| Parameter                    | Symbol          | Min. | Typ. | Max. | Unit    | Test Condition |
|------------------------------|-----------------|------|------|------|---------|----------------|
| Forward Voltage*             | Vf              | 1.8  | /    | 2.8  | V       | If=20mA        |
| Luminous intensity*          | Iv              | 125  | 190  | /    | mcd     | If=20mA        |
| Dominant Wavelength          | $\lambda_d$     | /    | 610  | /    | nm      | If=20mA        |
| Spectrum Radiation Bandwidth | $\Delta\lambda$ | 20   | 25   | 30   | nm      | If=20mA        |
| Reverse Current              | Ir              | /    | /    | 10   | $\mu$ A | VR=5V          |
| Viewing Angle                | 2 $\theta$ 1/2  | /    | 120  | /    | Deg     | *              |

\*Forward voltage measurement allowance is  $\pm 0.1V$ .

\*Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

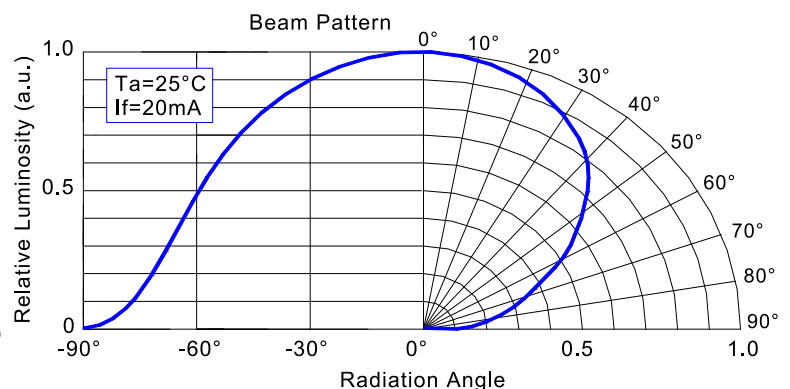
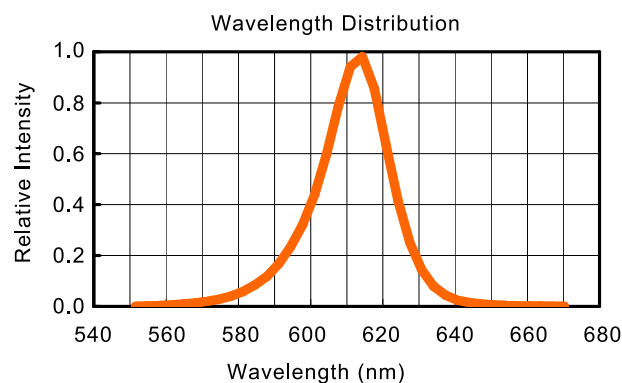
\*Luminous Intensity Measurement Allowance is  $\pm 10\%$ .

\*Dominant Wavelength measurement allowance is  $\pm 1nm$ .

\*2 $\theta$ 1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

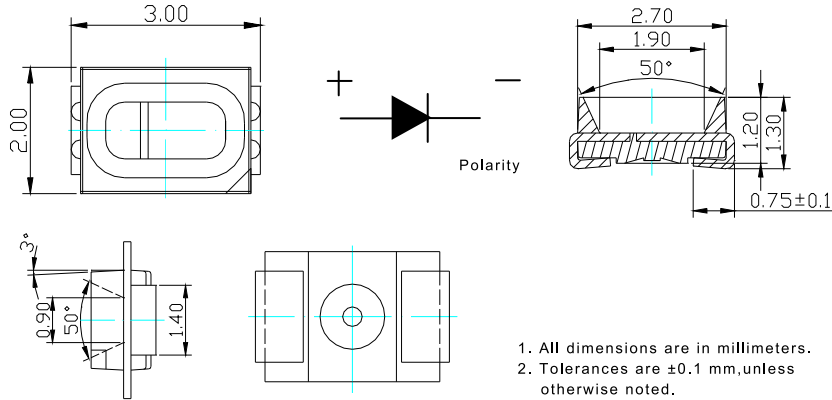
\*Please see attachments for BIN classifications.

#### (3) Typical Electrical / Optical Characteristics Curves

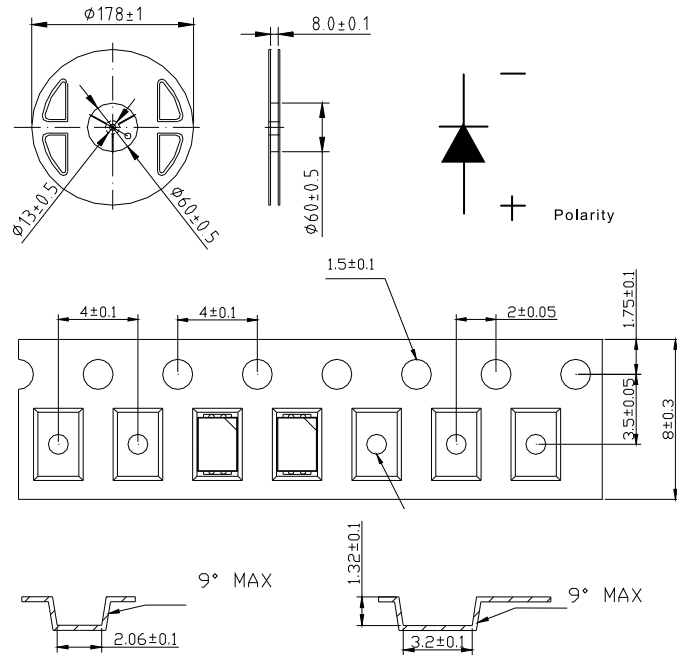


## 2. Package

### (1) Outline Dimension



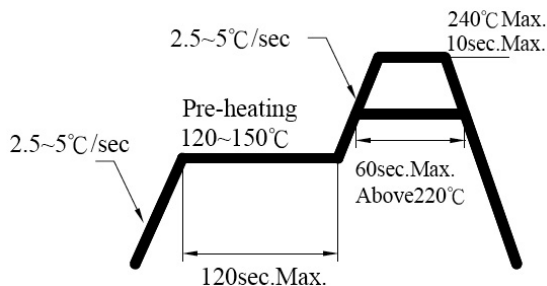
### (2) Taping Dimension (unit= mm)



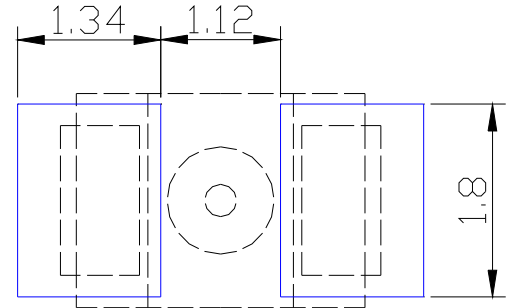
## 3. Handling Precaution

### (1) Recommended soldering conditions

#### 1.1 Reflow solder temperature profile



### 1.2 Recommended Soldering pad design (unit= mm)



### 1.3 Soldering conditions

- Reflow soldering should not be done more than twice.
- When soldering, do not stress on LEDs during heating.
- After soldering, do not warp the circuit board.

### (2) Repairing

- Repair should not be done after the LEDs have been soldered. When repair is unavoidable, double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will be damaged by repair or not.

### (3) Cleaning

- It is recommended to use isopropyl alcohol as a solvent to clean the LEDs. When using other solvents, it should be confirmed beforehand whether the solvents will dissolve the package and the resin or not.

### (4) Advice on Device Usage

- It is recommended that user should complete the use of the whole package within 8 hours upon unsealing. In the event of incomplete usage, it is advised that user preheat the remaining devices at 60°C for 8 hours prior to use.