#### 1. Features

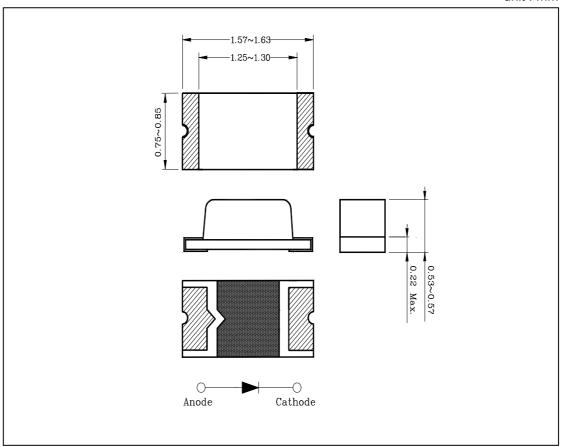
- ◆ 1.6mm(L)×0.8mm small size surface mount type
- ◆ Thin package of 0.55mm(H) thickness
- ◆ Transparent clear lens optic
- Ultra luminosity

# 2. Applications

- ◆LCD backlighting
- ◆Keypad backlighting
- ◆Symbol backlighting
- ◆Front panel indicator lamp

#### 3. Outline Dimensions

unit: mm

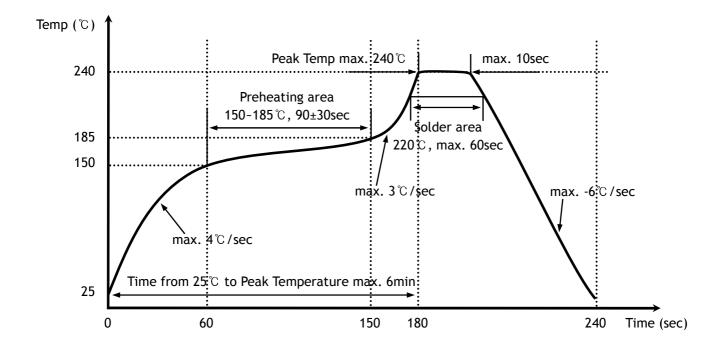


# 4. Absolute Maximum Ratings

(Ta=25°C)

| Characteristic              | Symbol            | Rating               | Unit |  |
|-----------------------------|-------------------|----------------------|------|--|
| Power dissipation           | $P_{D}$           | 65                   | mW   |  |
| Forward current             | ${ m I}_{\sf F}$  | 25                   | mA   |  |
| *1 Peak forward current     | ${ m I}_{\sf FP}$ | 50                   | mA   |  |
| Reverse voltage             | $V_R$             | 10                   | V    |  |
| Operating temperature range | $T_{opr}$         | <b>-</b> 25∼80       | °C   |  |
| Storage temperature range   | $T_{stg}$         | -30~100              | °C   |  |
| *2 Soldering temperature    | T <sub>sol</sub>  | 240°C for 10 seconds |      |  |

<sup>\*1.</sup>Duty ratio = 1/16, Pulse width = 0.1ms



<sup>\*2.</sup>Recommended reflow soldering temperature profile

# 5. Electrical / Optical Characteristics

 $(Ta=25^{\circ}C)$ 

| Characteristic        | Syn | nbol           | Test Condition        | Min. | Тур. | Max. | Unit |
|-----------------------|-----|----------------|-----------------------|------|------|------|------|
| Forward voltage       | ١   | / <sub>F</sub> | I <sub>F</sub> = 10mA | -    | 1.9  | 2.3  | ٧    |
| *3 Luminous intensity | I   | ·V             | I <sub>F</sub> = 10mA | 27   | 1    | 100  | mcd  |
| Peak wavelength       | λ   | √P             | I <sub>F</sub> = 10mA | -    | 640  | -    | nm   |
| Spectrum bandwidth    | Δ   | λλ             | I <sub>F</sub> = 10mA | -    | 20   | -    | nm   |
| Reverse current       | I   | ·R             | V <sub>R</sub> =10V   | -    | 1    | 10   | uA   |
| *4 Half angle         | θ/2 | Х              | I <sub>F</sub> = 10mA | -    | ±65  | -    | deg  |
|                       |     | Υ              |                       | -    | ±70  | -    |      |

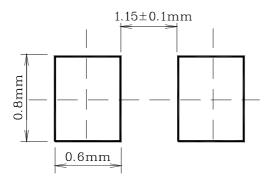
<sup>\*</sup>4.0/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

<sup>\*3.</sup>Luminous Intensity Classification

| I     | J     | K      |  |  |
|-------|-------|--------|--|--|
| 27~43 | 43~68 | 68~100 |  |  |

(Each  $I_V$  range did not consider a margin. Please refer to  $\pm 18\%$  of  $I_V$  range as a permitted limit and do not use to combine grade classification. It must be used separately grade classification)

\* Recommended Soldering Land Pattern



<sup>\*3.</sup> The test result of  $I_F=10$  mA is only for reference

#### 6. Characteristic Diagrams

Fig. 1  $I_F$  -  $V_F$ 

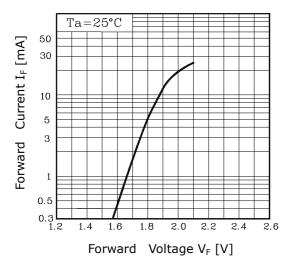


Fig.  $3 I_F - Ta$ 

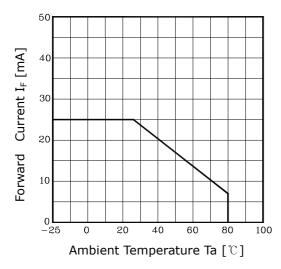
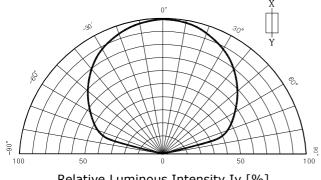
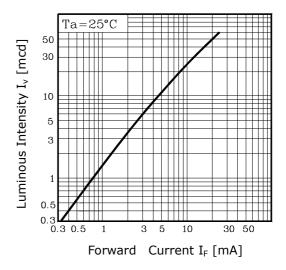


Fig. 5-1 Radiation Diagram(X)



Relative Luminous Intensity Iv [%]

Fig. 2  $I_V$  -  $I_F$ 



**Fig.4 Spectrum Distribution** 

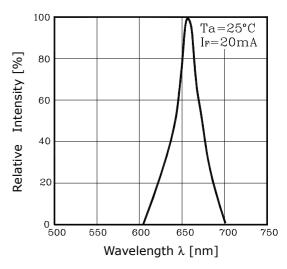


Fig. 5-2 Radiation Diagram(Y)

