

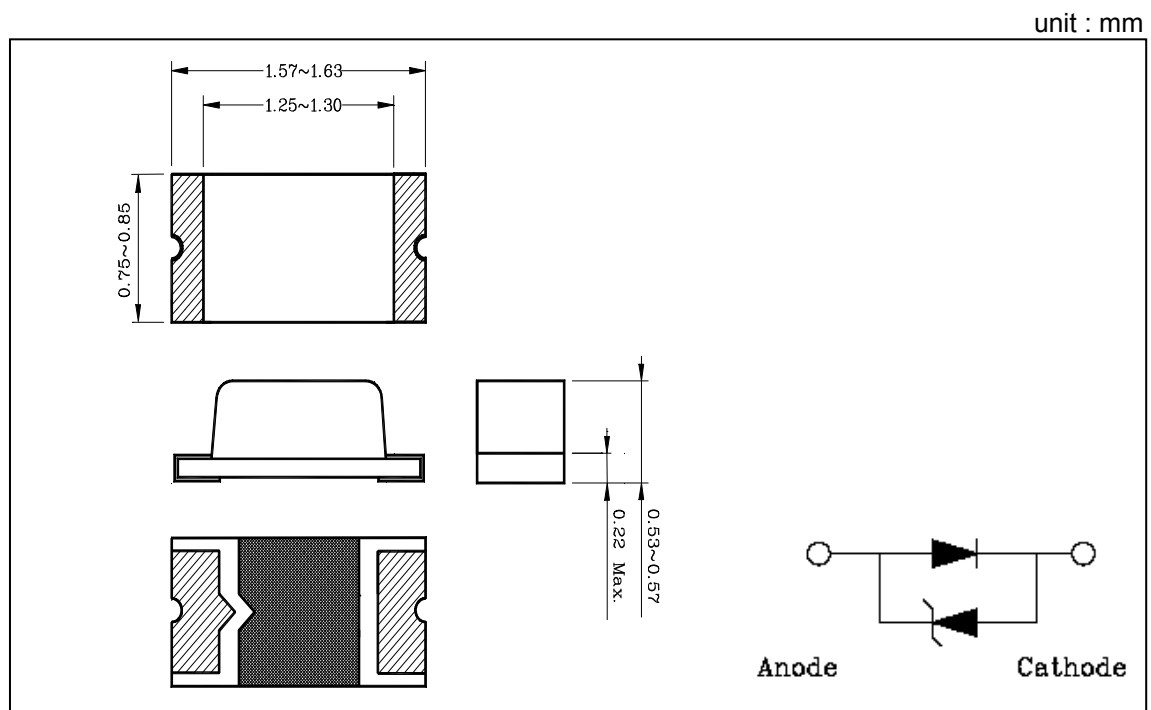
1. Features

- ◆ 1.6mm(L)×0.8mm(W) small size surface mount type
- ◆ Thin package of 0.55mm(H) thickness
- ◆ Transparent clear lens optic
- ◆ Low power consumption type chip LED
- ◆ Emitting light green (530nm)
- ◆ E ; ESD Protected ($\pm 2.0\text{KV}$, 3 Times @100pF, 1.5K Ω)

2. Applications

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

3. Outline Dimensions



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4. Absolute Maximum Ratings

(Ta=25°C)

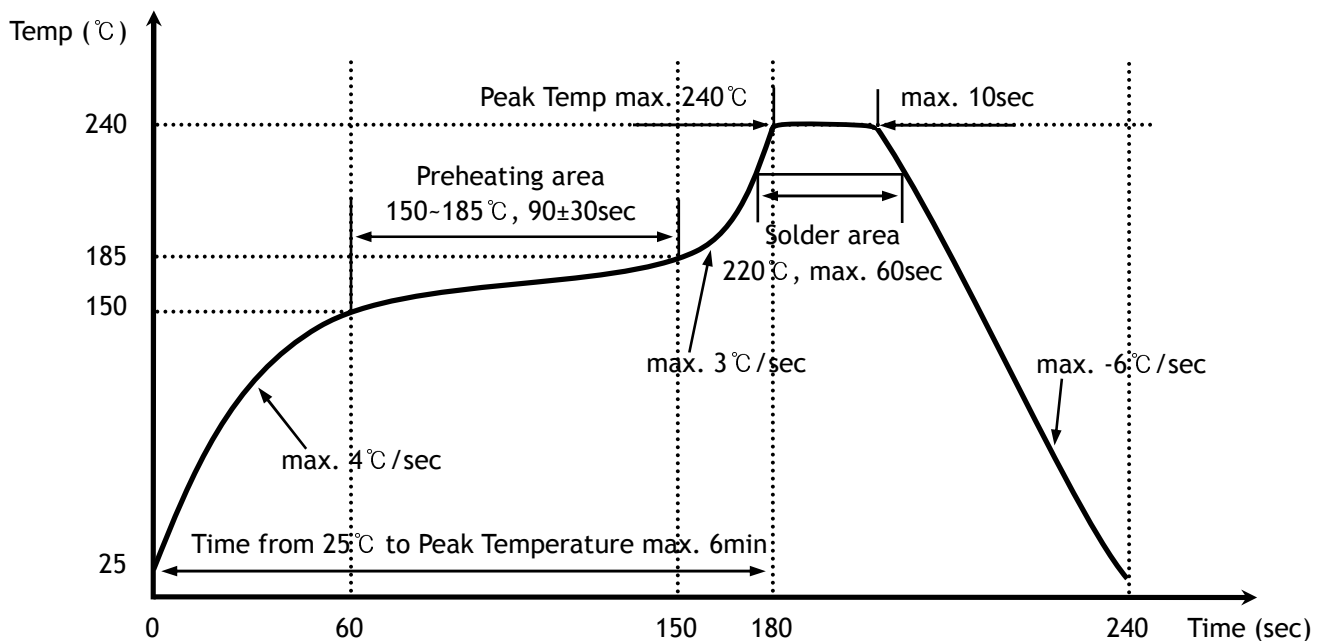
| Characteristic | Symbol | Rating | Unit |
|-----------------------------|-----------|----------------------|------|
| Power dissipation | P_D | 64 | mW |
| Forward current | I_F | 20 | mA |
| *1 Peak forward current | I_{FP} | 50 | mA |
| Operating temperature range | T_{opr} | -25~80 | °C |
| Storage temperature range | T_{stg} | -30~100 | °C |
| *2 Soldering temperature | T_{sol} | 240°C for 10 seconds | |

*1. Duty ratio = 1/16, Pulse width = 0.1ms

*2. Recommended reflow soldering temperature profile

- Preheating 150°C to 185°C within 120 seconds soldering 240°C within 10 seconds

Gradual cooling (Avoid quenching)



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5. Electrical / Optical Characteristics

(Ta=25°C)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|-----------------------|-----------------|----------------|-----|----------|-----|------|
| Forward voltage | V_F | $I_F = 5mA$ | 2.6 | - | 3.2 | V |
| *3 Luminous intensity | I_V | $I_F = 5mA$ | 56 | - | 110 | mcd |
| Dominant wavelength | λ_D | $I_F = 5mA$ | 536 | - | 545 | nm |
| Spectrum bandwidth | $\Delta\lambda$ | $I_F = 5mA$ | - | 35 | - | nm |
| *4 Half angle | $\theta/2$ | X | - | ± 65 | - | deg |
| | | Y | - | ± 70 | - | |

*3.The test result of $I_F=5mA$ is only for reference

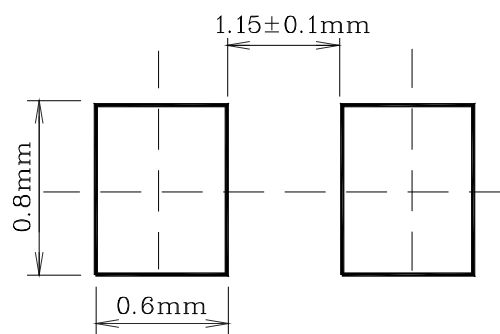
*4. $\theta/2$ is the off-axis angle where the luminous intensity is 1/2 the peak intensity

◆ $V_F / I_V / \lambda_D$ Grade Classification (Ta=25°C)

| Test Condition @ $I_F = 5mA$ | | |
|------------------------------|--------------------------|--------------------------|
| Forward Voltage [V] | Luminous Intensity [mcd] | Dominant Wavelength [nm] |
| 2 : 2.6~2.8 | C : 56 ~ 73 | e_1 : 536~540 |
| 3 : 2.8~3.0 | | |
| 4 : 3.0 ~3.2 | D : 73 ~ 110 | e_2 : 540~545 |

(Each V_F , I_V , λ_D range did not consider a margin. Please refer to $\pm 0.1V$ of V_F range, $\pm 18\%$ of I_V range, $\pm 1nm$ of λ_D range as a permitted limit and do not use to combine grade classification. It must be used separately grade classification)

* Recommended Soldering Land Pattern



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6. Characteristic Diagrams

Fig. 1 $I_F - V_F$

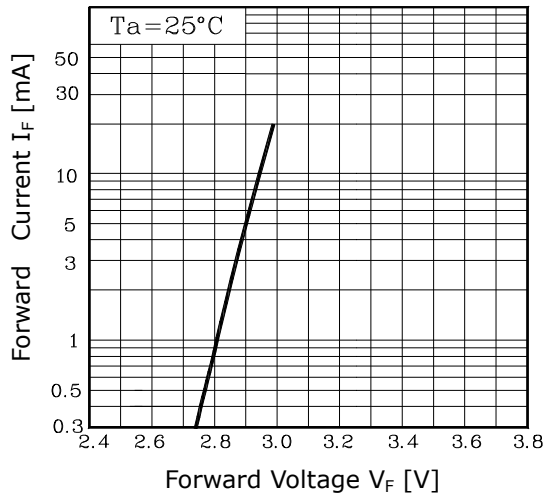


Fig. 2 $I_V - I_F$

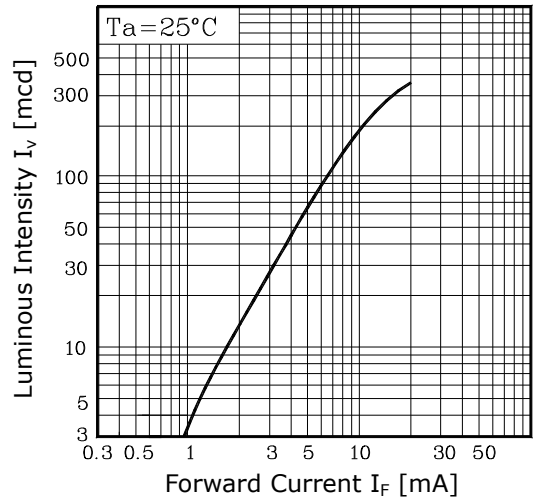


Fig. 3 $I_F - T_a$

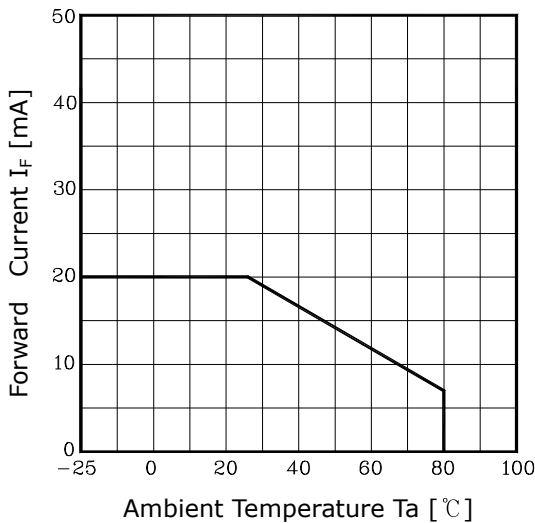


Fig.4 Spectrum Distribution

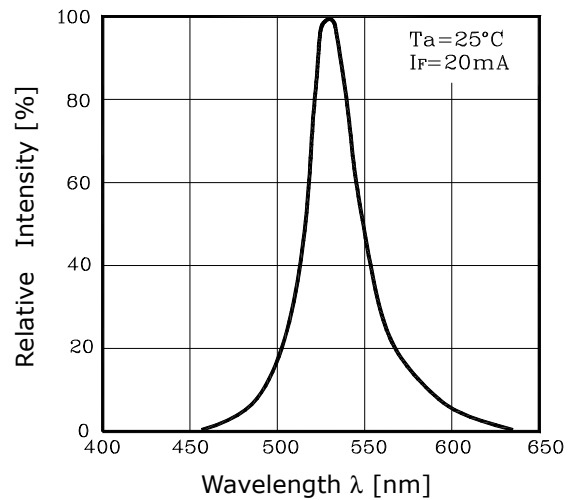


Fig. 5-1 Radiation Diagram(X)

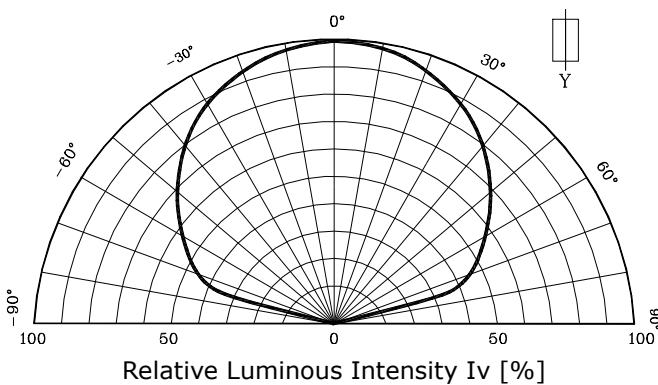
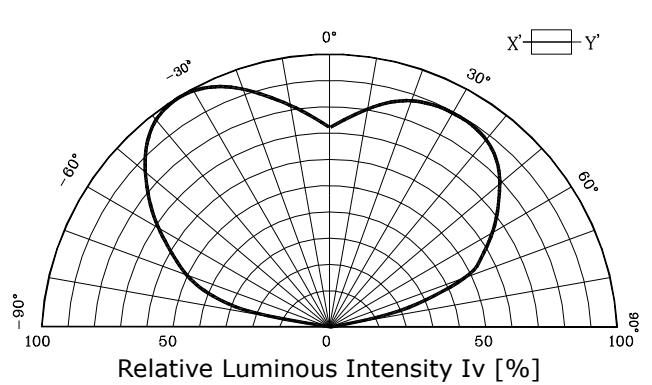


Fig. 5-2 Radiation Diagram(Y)



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