

### 1. Features

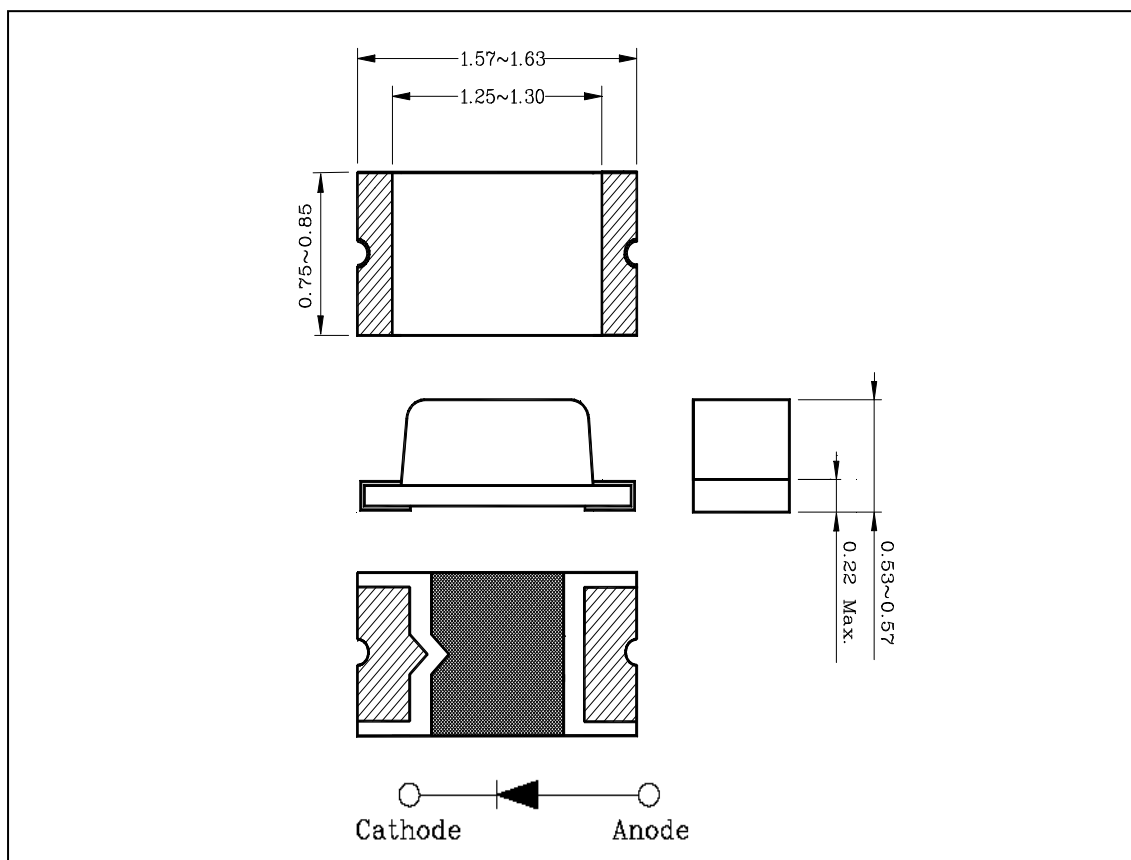
- ◆ 1.6mm(L)×0.8mm small size surface mount type
- ◆ Thin package of 0.55mm(H) thickness
- ◆ Transparent clear lens optic
- ◆ Super luminosity

### 2. Applications

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

### 3. Outline Dimensions

unit : mm



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4. Absolute Maximum Ratings

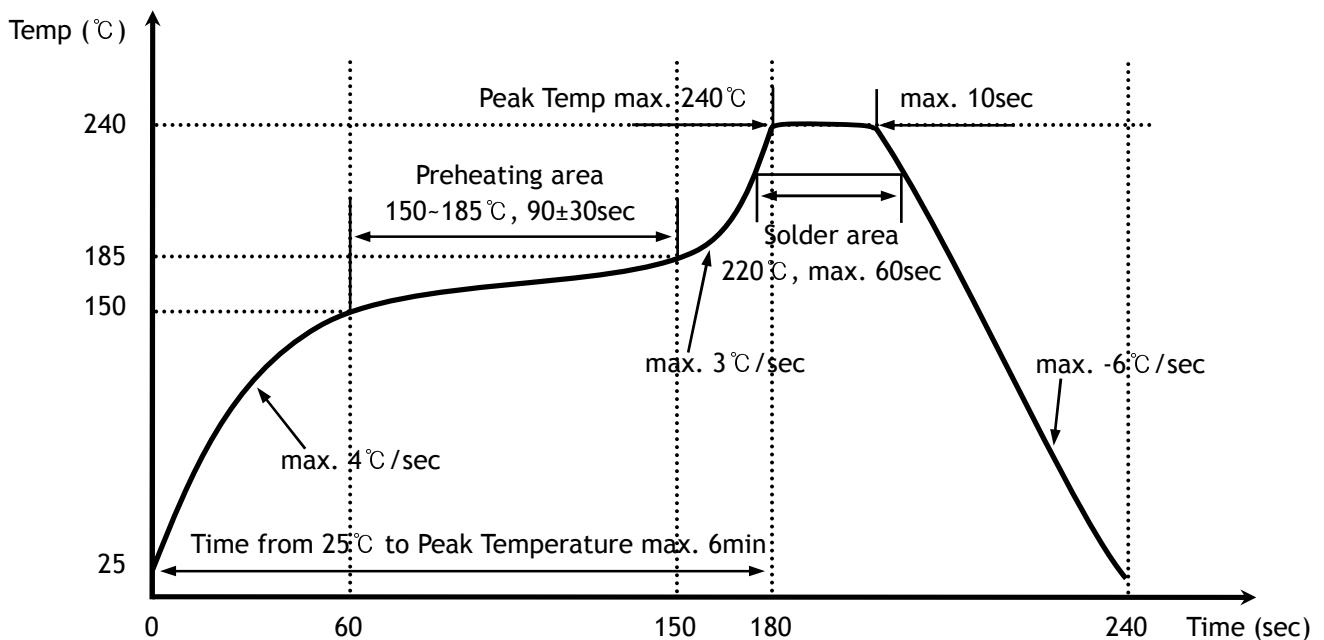
(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	$P_D$	60	mW
Forward current	$I_F$	25	mA
*1 Peak forward current	$I_{FP}$	50	mA
Reverse voltage	$V_R$	4	V
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 90±30 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	$V_F$	$I_F = 20\text{mA}$	-	2.0	2.4	V
*3 Luminous intensity	$I_V$	* <sup>3</sup> $I_F = 6\text{mA}$	6.9	-	14	mcd
		$I_F = 20\text{mA}$	23	-	46	
Peak wavelength	$\lambda_P$	$I_F = 20\text{mA}$	-	660	-	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
Reverse current	$I_R$	$V_R = 4\text{V}$	-	-	10	uA
*4 Half angle	$\theta/2$	X	-	$\pm 65$	-	deg
		Y	-	$\pm 70$	-	

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

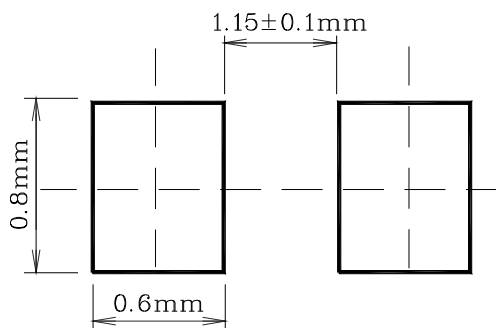
\*3. The test result of  $I_F = 6\text{mA}$  is only for reference

\*3. Luminous Intensity Classification

C <sub>1</sub>	C <sub>2</sub>	D	E
6.9~8.1	8.1~9.3	9.3~11.4	11.4~14

(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



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6. Characteristic Diagrams

Fig. 1  $I_F - V_F$

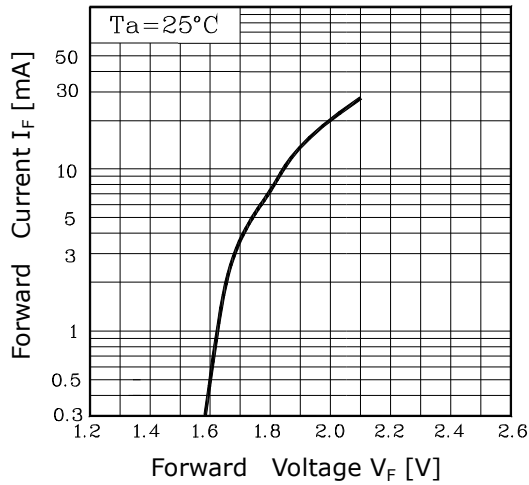


Fig. 2  $I_V - I_F$

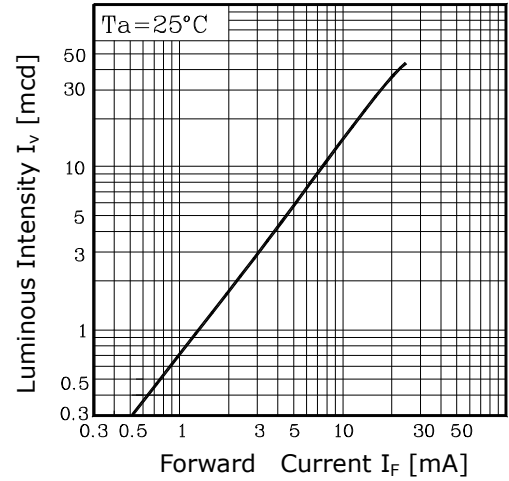


Fig. 3  $I_F - T_a$

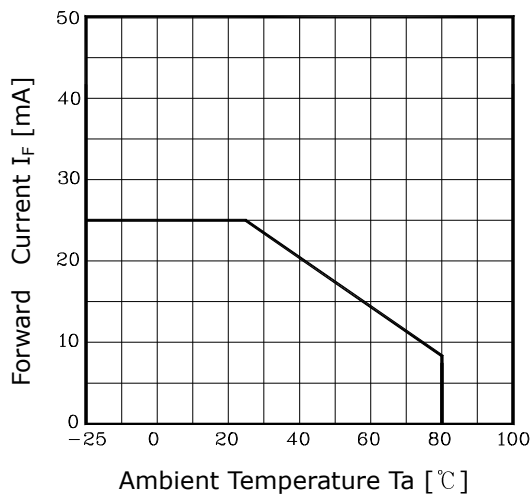


Fig.4 Spectrum Distribution

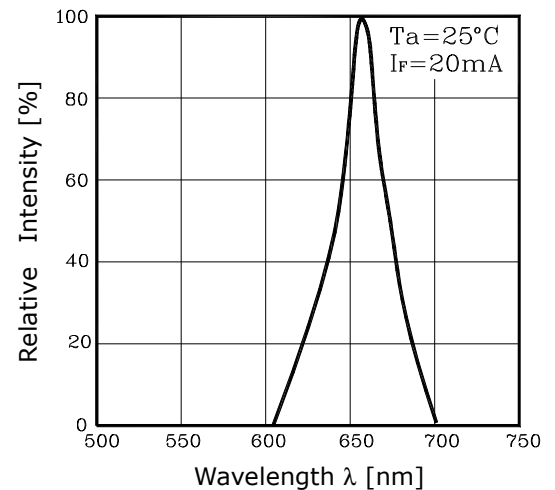


Fig. 5-1 Radiation Diagram(X)

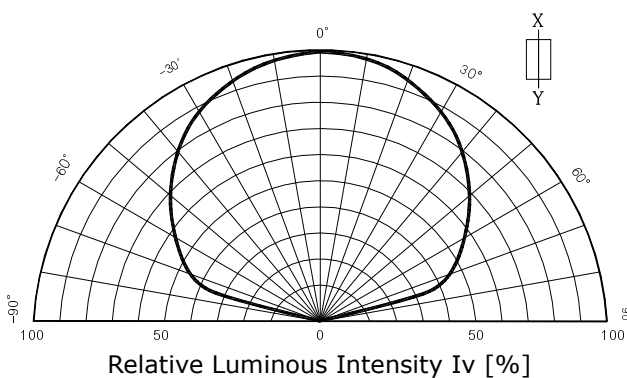
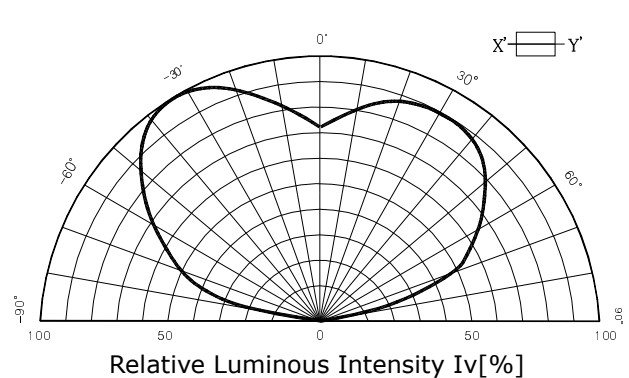


Fig. 5-2 Radiation Diagram(Y)



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