

Features

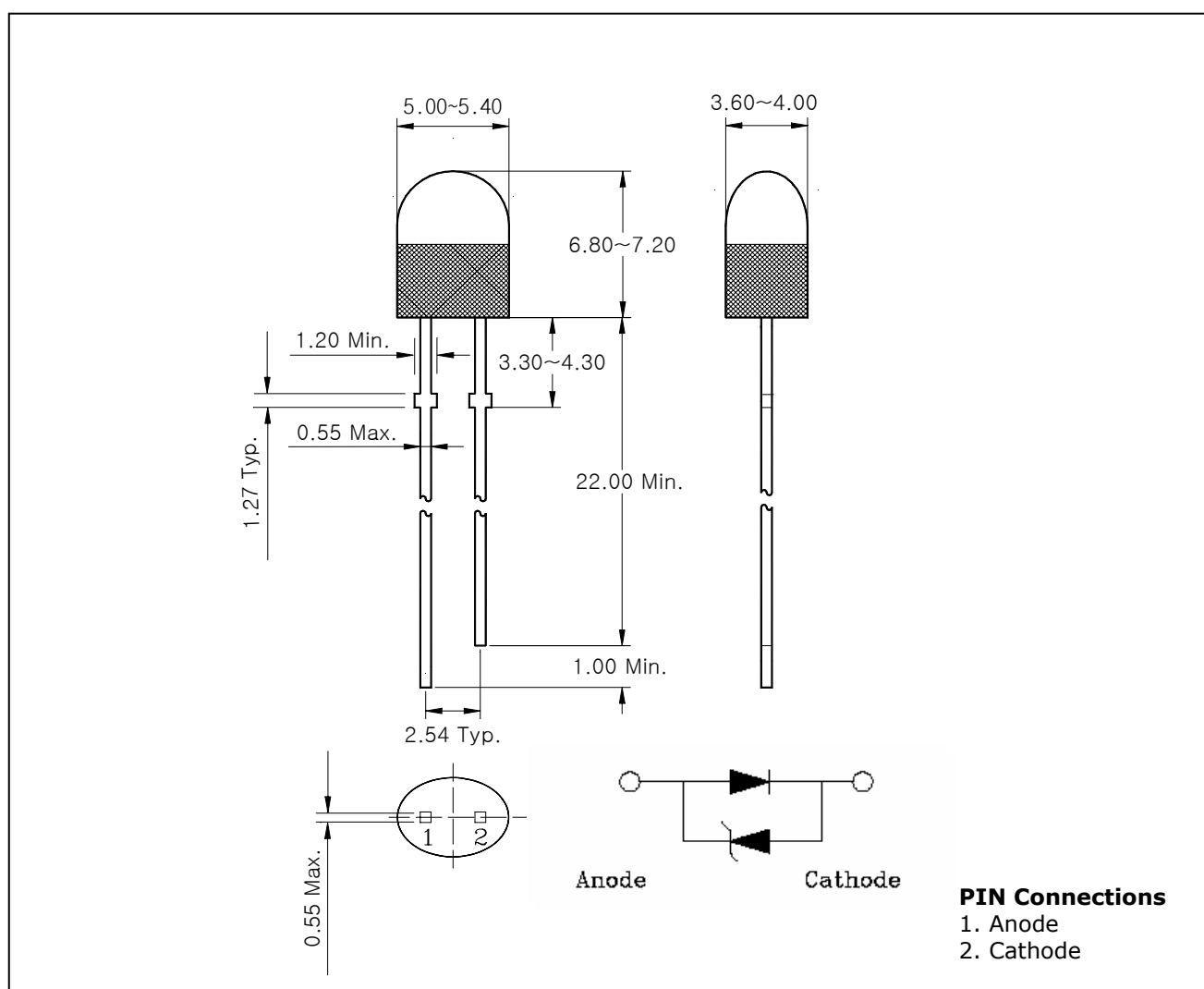
- Blue colored diffusion lens type
- Ellipse type(X=5.2mm, Y=3.8mm)
- Ultra luminosity
- Flangeless package
- High power LEDs
- Oval shape
- Lens color : Blue(Diffusion Type)
- Half angle($2\theta_{\frac{1}{2}}$) : 110° / 40°)
- **E ; ESD Protected ($\pm 2.0\text{KV}$, 3 Times @100pF, 1.5K Ω)**

Application

- Full color displays
- Message boards
- Variable message signs(VMS)

Outline Dimensions

unit : mm



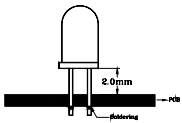
Absolute Maximum Ratings

(Ta = 25℃)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	150	mW
Forward current	I_F	40	mA
*1Peak forward current	I_{FP}	50	mA
Operating temperature range	T_{opr}	-30 ~ 85	℃
Storage temperature range	T_{stg}	-30 ~ 100	℃
*2Soldering temperature	T_{sol}	260℃ for 10 seconds	

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

*2.Keep the distance more than 2.0mm from PCB to the bottom of LED package



※ Recommend document

-. LED is very sensitive to ESD.

Electrical / Optical Characteristics

(Ta = 25℃)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F = 20\text{mA}$	-	3.2	3.8	V
*4Luminous intensity	I_V	$I_F = 20\text{mA}$	100	-	780	mcd
Dominant wavelength	λ_D	$I_F = 20\text{mA}$	457	465	473	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	35	-	nm
*3Half angle	$\theta_{1/2}$	$I_F = 20\text{mA}$	-	± 55	-	deg
			-	± 20	-	

*3. $\theta_{1/2}$ is the off-axis angle where the luminous intensity is 1/2 the peak intensity

*4. Luminous intensity maximum tolerance for each grade classification limit is $\pm 18\%$

*4. Luminous Intensity Classification

L	M	N	O	P
100~155	155~230	230~350	350~520	520~780

(Do not use to combine grade classification. It must be used separately grade classification)

Characteristic Diagrams

Fig. 1 $I_F - V_F$

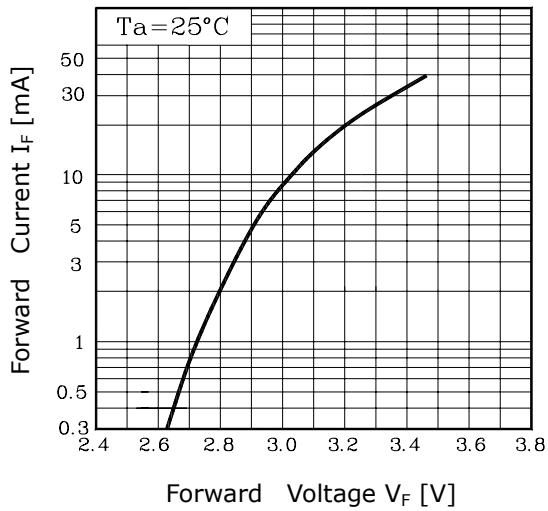


Fig. 2 $I_V - I_F$

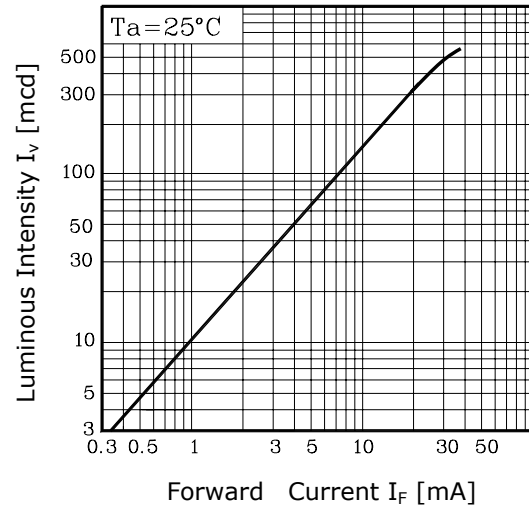


Fig. 3 $I_F - T_a$

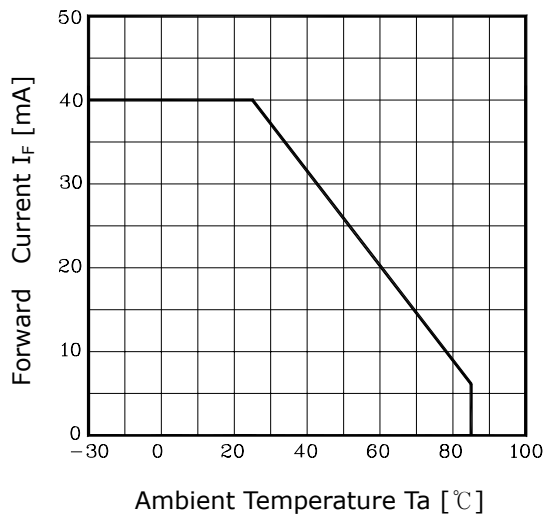


Fig.4 Spectrum Distribution

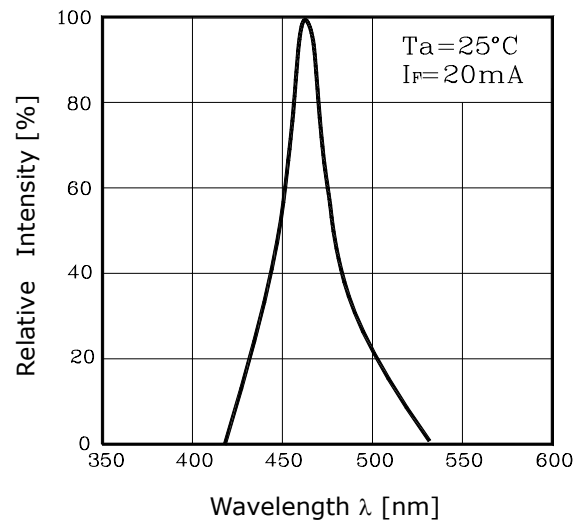


Fig. 5-1 Radiation Diagram(X)

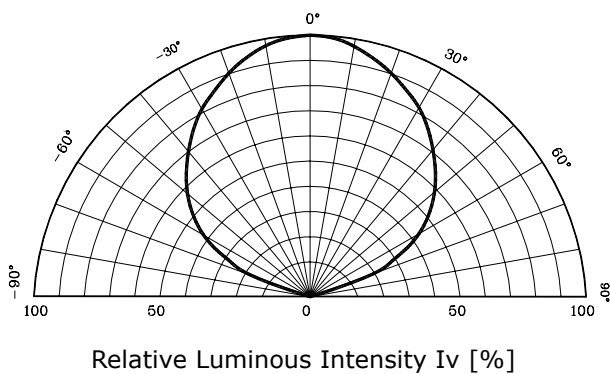
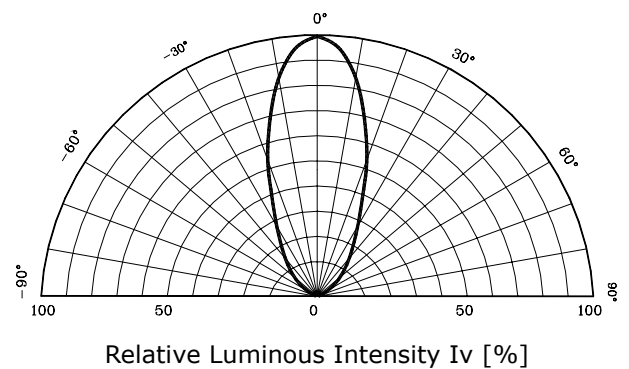


Fig. 5-2 Radiation Diagram(Y)



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