

Features

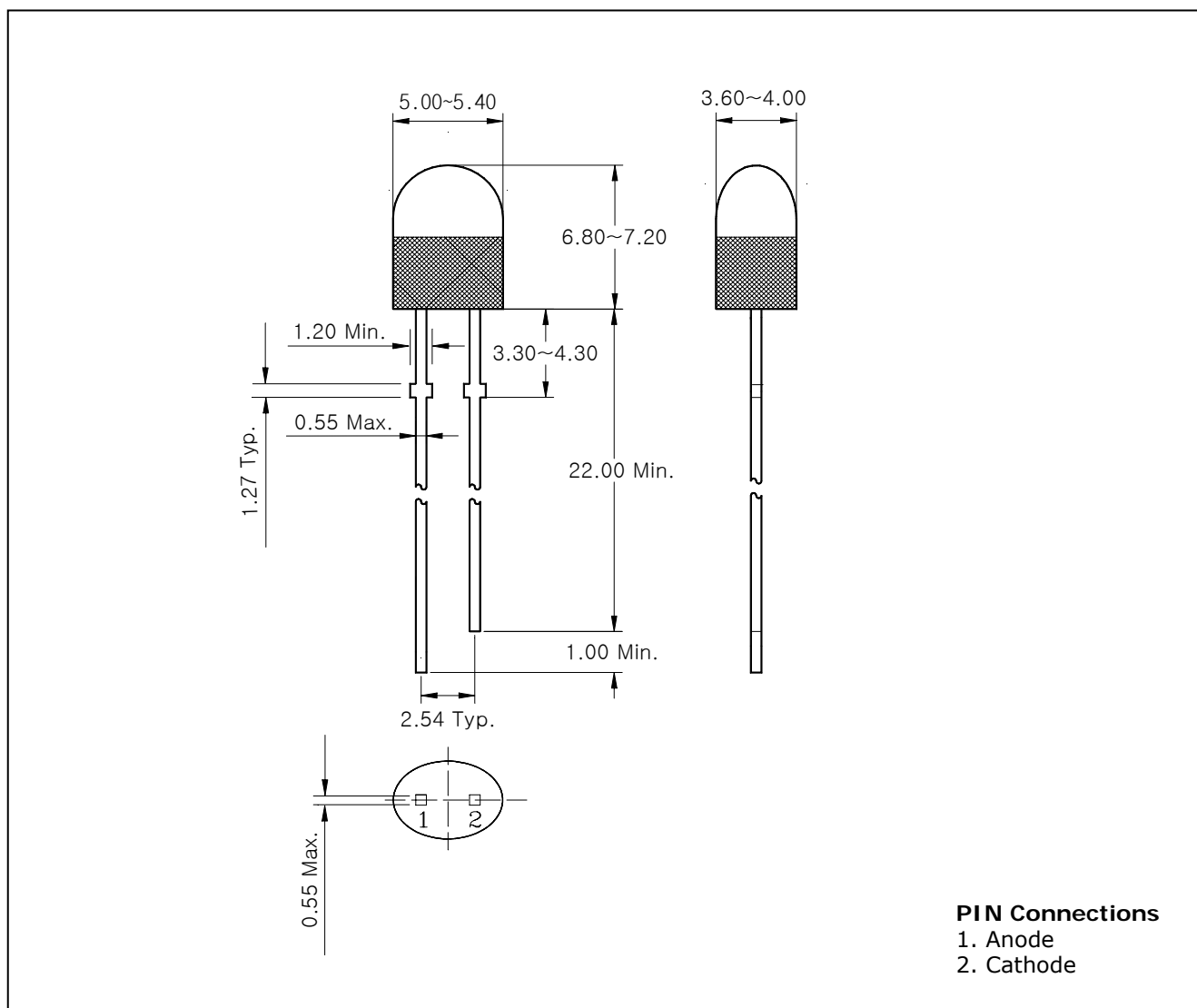
- Red Colored diffusion lens type
- Ellipse type(X=5.2mm, Y=3.8mm)
- Super luminosity
- Flangeless package
- High power LEDs
- Oval shape
- Lens Color : Red(Diffusion Type)
- Half Angle($2\theta_{\frac{1}{2}}$) : 110° / 40°)

Application

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

Outline Dimensions

unit : mm



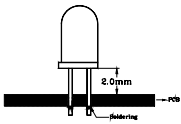
Absolute Maximum Ratings

(Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	100	mW
Forward current	I_F	40	mA
*1 Peak forward current	I_{FP}	50	mA
Reverse voltage	V_R	4	V
Operating temperature range	T_{opr}	-20 ~ 85	°C
Storage temperature range	T_{stg}	-30 ~ 100	°C
*2 Soldering temperature	T_{sol}	260°C 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



Electrical / Optical Characteristics

(Ta = 25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F = 20\text{mA}$	-	2.1	2.5	V
*4 Luminous intensity	I_V	$I_F = 20\text{mA}$	155	-	700	mcd
Dominant wavelength	λ_D	$I_F = 20\text{mA}$	615	622	630	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	17	-	nm
Reverse current	I_R	$V_R = 4\text{V}$	-	-	10	uA
*3 Half 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

M	N	O	P
155~230	230~350	350~520	520~700

Characteristic Diagrams

Fig. 1 $I_F - V_F$

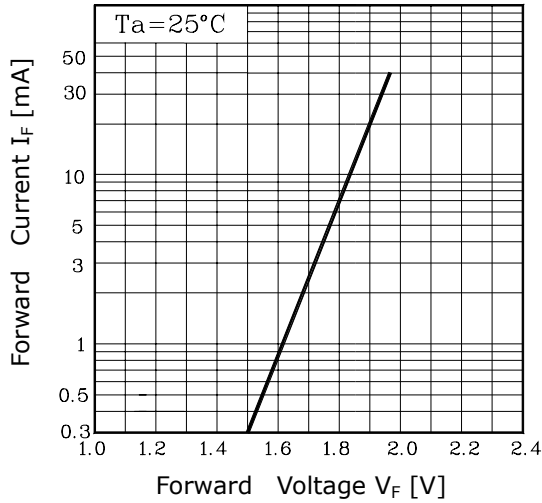


Fig. 2 $I_V - I_F$

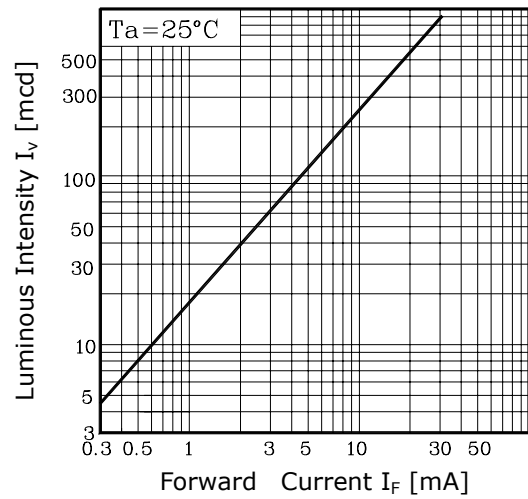


Fig. 3 $I_F - T_a$

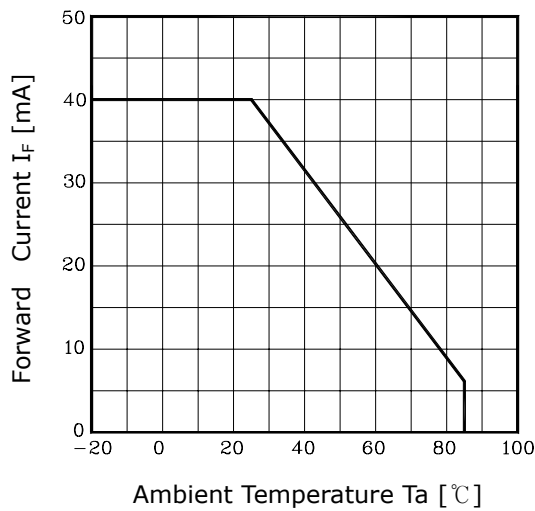


Fig.4 Spectrum Distribution

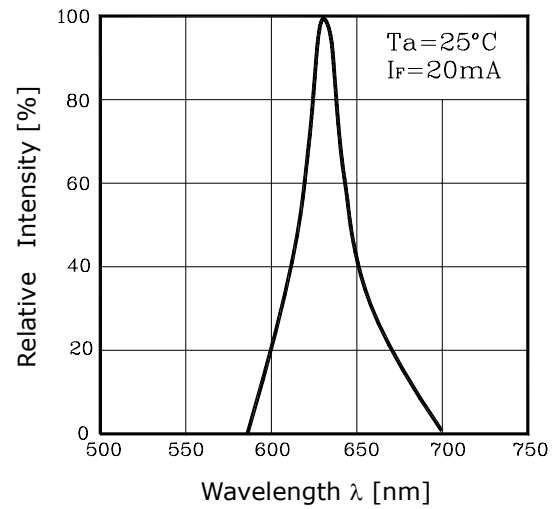


Fig. 5-1 Radiation Diagram(X)

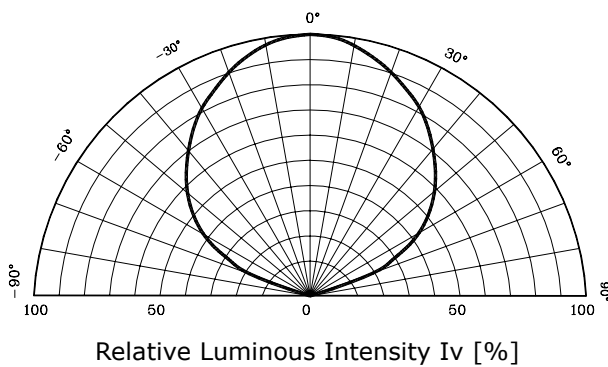
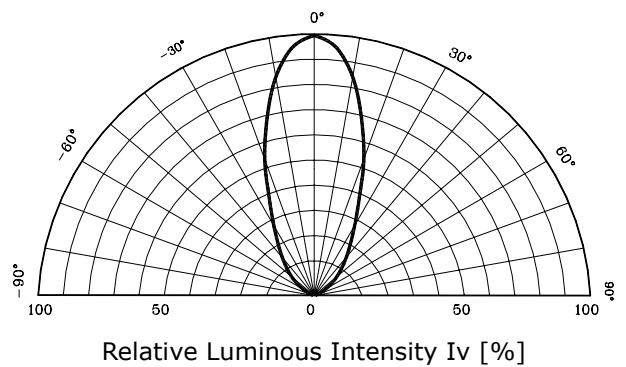


Fig. 5-2 Radiation Diagram(Y)



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