

**Features**

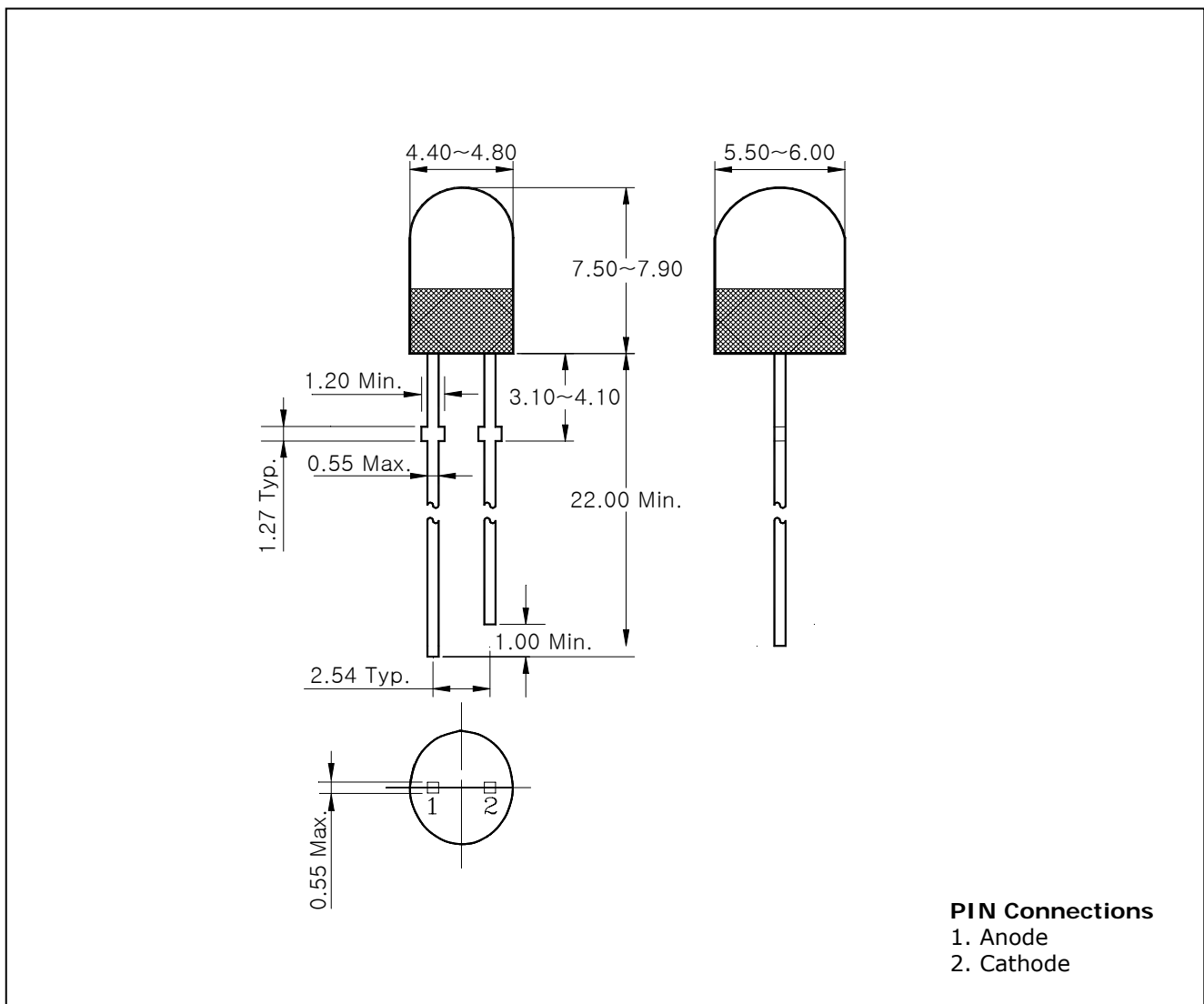
- Red Colored diffusion lens type
- Ellipse type(X=4.6mm, Y=5.8mm)
- Super luminosity
- Flangeless package
- High power LEDs
- Oval shape
- Lens Color : Red
- View Angle : 70° / 34°

**Application**

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

**Outline Dimensions**

unit : mm



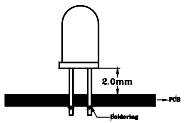
## Absolute Maximum Ratings

(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	$T_{opr}$	-25~85	°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	$I_V$	$I_F=20\text{mA}$	700	-	2640	mcd
Dominant wavelength	$\lambda_D$	$I_F=20\text{mA}$	614	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	$\theta_{1/2}$	$I_F=20\text{mA}$	-	$\pm 17$	-	deg
			-	$\pm 35$	-	

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

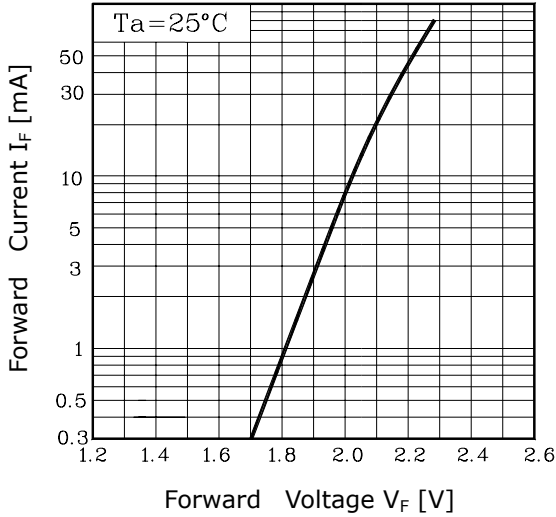
\*4. Luminous intensity maximum tolerance for each grade classification limit is  $\pm 18\%$

\*4. Luminous Intensity Classification

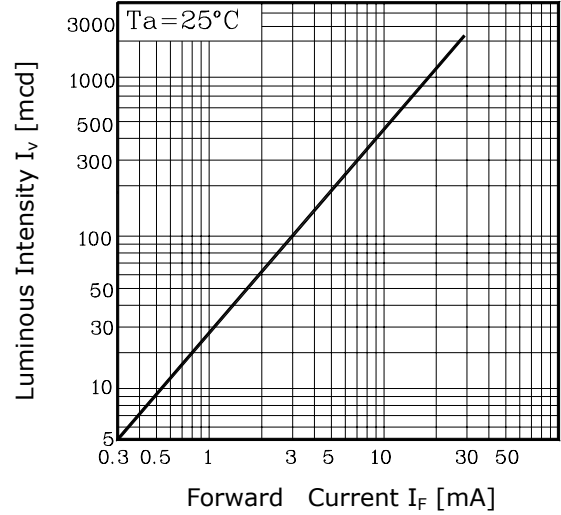
Q	R <sub>1</sub>	R <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>
700~1170	1170~1465	1465~1760	1760~2100	2100~2640

## Characteristic Diagrams

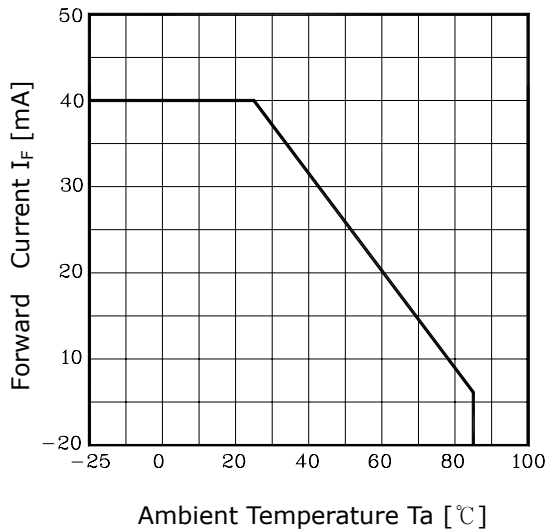
**Fig. 1  $I_F - V_F$**



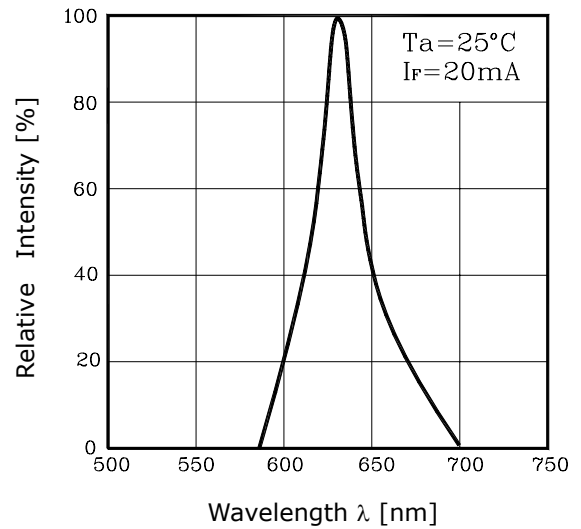
**Fig. 2  $I_V - I_F$**



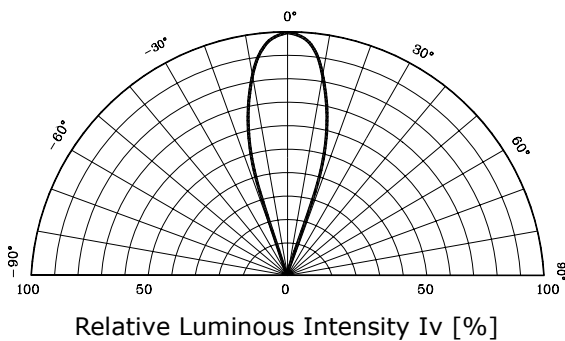
**Fig. 3  $I_F - T_a$**



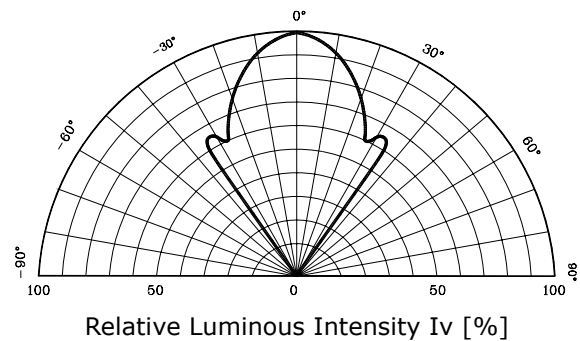
**Fig.4 Spectrum Distribution**



**Fig. 5-1 Radiation Diagram(X)**



**Fig. 5-2 Radiation Diagram(Y)**



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