AUK Semiconductor

SHE145AF(B)

High Efficiency LED Lamp

Features

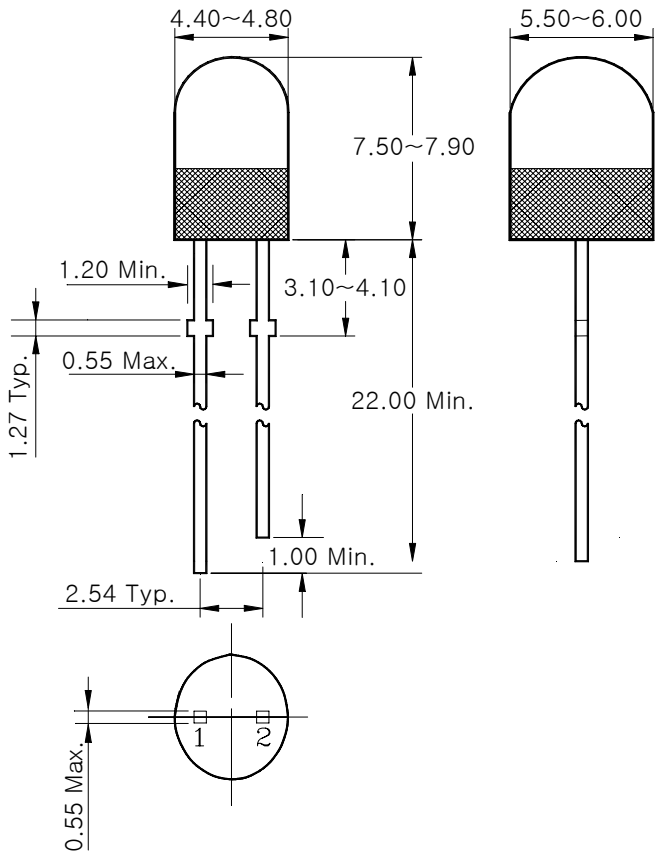
- Red Colored diffusion lens type
- Ellipse type(X=4.6mm, Y=5.8mm)
- Super luminosity
- Flangeless package
- High power LEDs
- Oval shape
- Lens Color : Red
- View Angle : 70˚ / 34˚

Application

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

Outline Dimensions

unit : mm



PIN Connections
1. Anode
2. Cathode

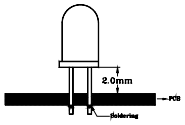
Absolute Maximum Ratings

(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	℃
Storage temperature range	T_{stg}	-30～100	℃
*[2]Soldering 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



Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol		Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F		I_F= 20mA	-	2.1	2.5	V
*[4]Luminous intensity	I_V		I_F= 20mA	700	-	2640	mcd
Dominant wavelength	λ_D		I_F= 20mA	614	622	630	nm
Spectrum bandwidth	$\Delta\lambda$		I_F= 20mA	-	17	-	nm
Reverse current	I_R		V_R=4V	-	-	10	uA
*[3]Half angle	$\theta 1/2$	X	I_F= 20mA	-	±17	-	deg
		Y		-	±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 ±18%

*4. Luminous Intensity Classification

Q	R_1	R_2	S_1	S_2
700~1170	1170~1465	1465~1760	1760~2100	2100~2640

Characteristic Diagrams

Fig. 1 I_F - V_F

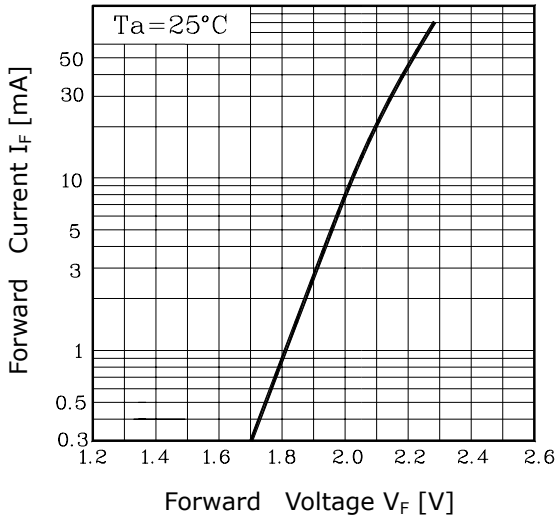


Fig. 2 I_V - I_F

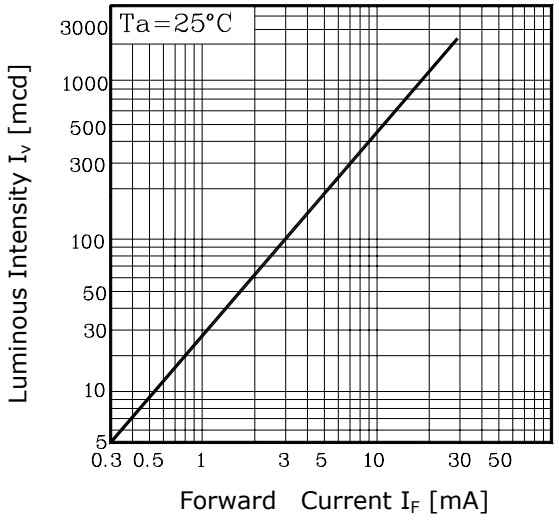


Fig. 3 I_F – Ta

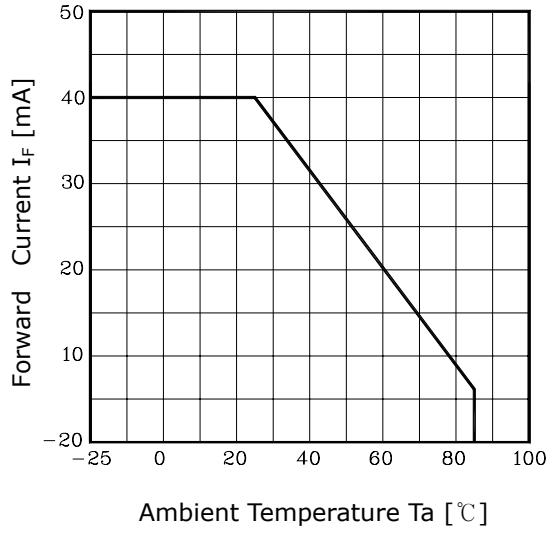


Fig.4 Spectrum Distribution

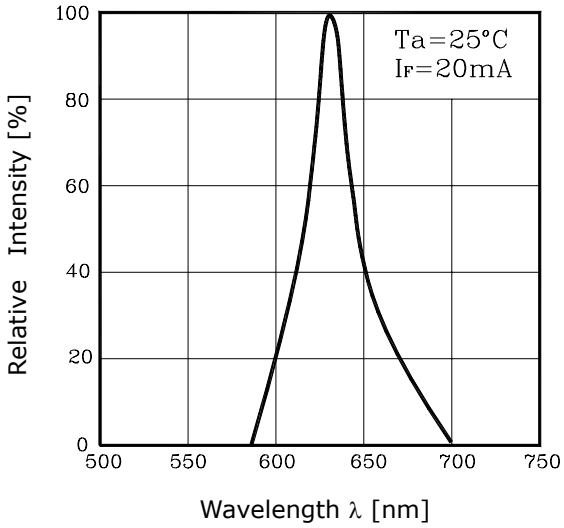


Fig. 5-1 Radiation Diagram(X)

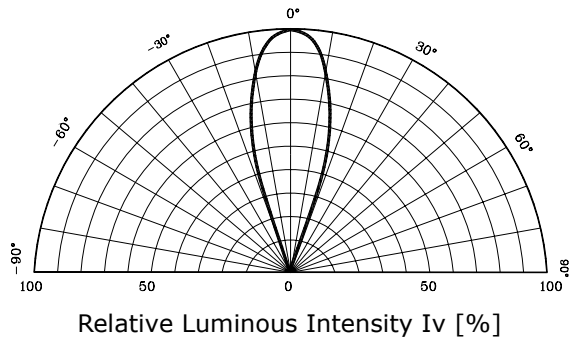
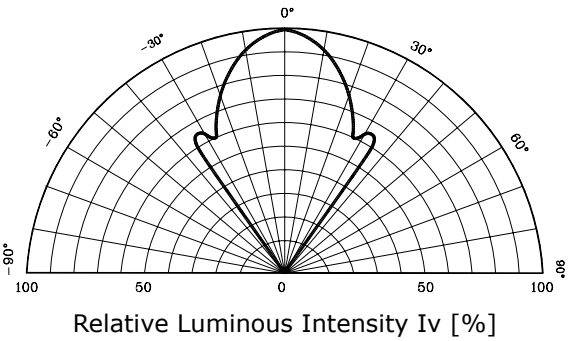


Fig. 5-2 Radiation Diagram(Y)



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