AUK Semiconductor

SHE144PGI-(B)

High Efficiency LED Lamp

Features

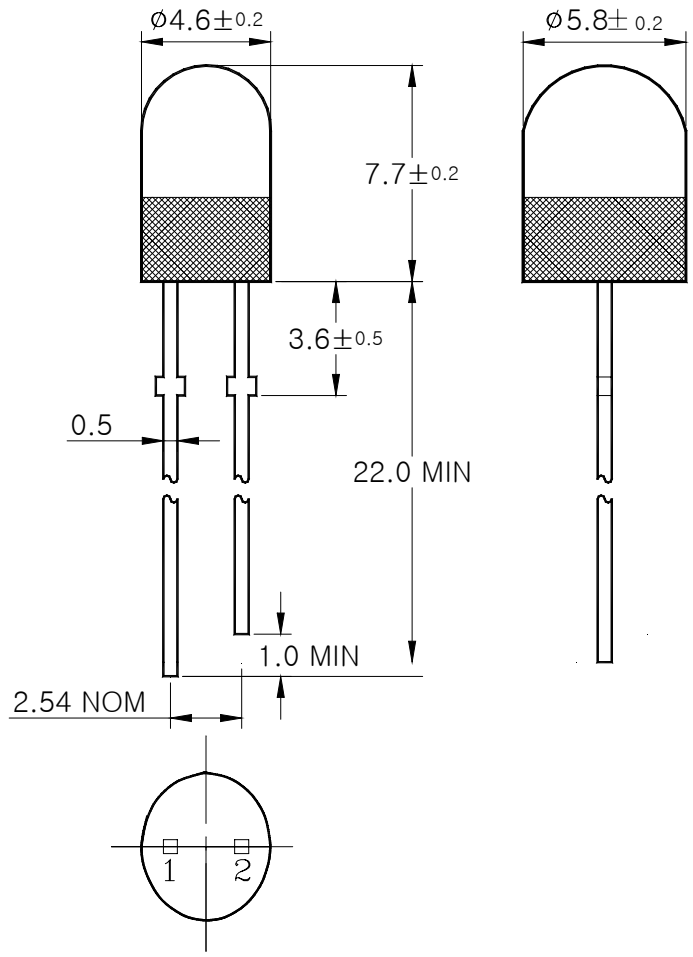
- Green colored transparency lens type
- Ellipse type(X=4.6mm, Y=5.8mm)
- Ultra luminosity
- Flangeless package
- High power LEDs
- Oval shape
- View Angle : 70˚ / 34˚

Application

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

Outline Dimensions

unit : mm



PIN Connections
1.Anode
2.Cathode

Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Power Dissipation	P_D	155	mW
Forward Current	I_F	40	mA
*[1]Peak Forward Current	I_{FP}	50	mA
Reverse Voltage	V_R	4	V
Operating Temperature	T_{opr}	-30～85	℃
Storage Temperature	T_{stg}	-30～100	℃
*[2]Soldering Temperature	T_{sol}	260℃ for 3 seconds	

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

※ Recommend document

−. LED is very sensitive to ESD.

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

Electrical Characteristics

Characteristic	Symbol		Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F		I_F= 20mA	2.7	3.3	3.8	V
*[4]Luminous Intensity	I_V		I_F= 20mA	1760	3960	5940	mcd
Peak Wavelength	λ_P		I_F= 20mA	-	525	-	nm
Spectrum Bandwidth	$\Delta\lambda$		I_F= 20mA	-	35	-	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

S	T	U
1760~2640	2640-3960	3960-5940

Characteristic Diagrams

Fig. 1 I_F - V_F

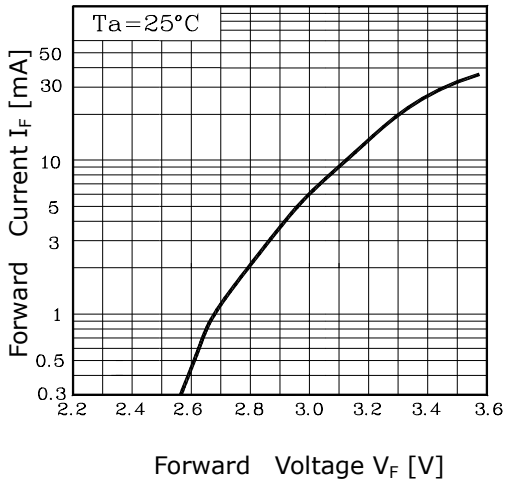


Fig. 2 I_V - I_F

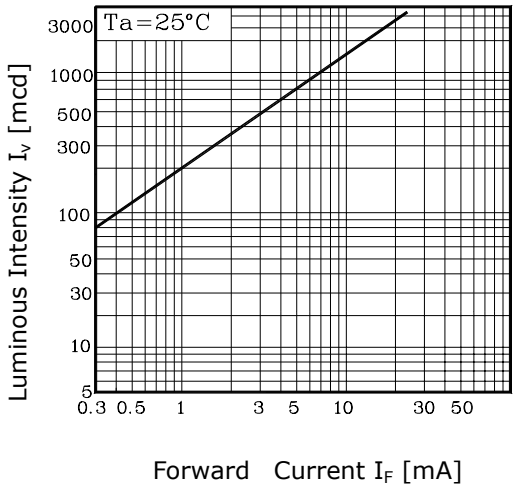


Fig. 3 I_F – Ta

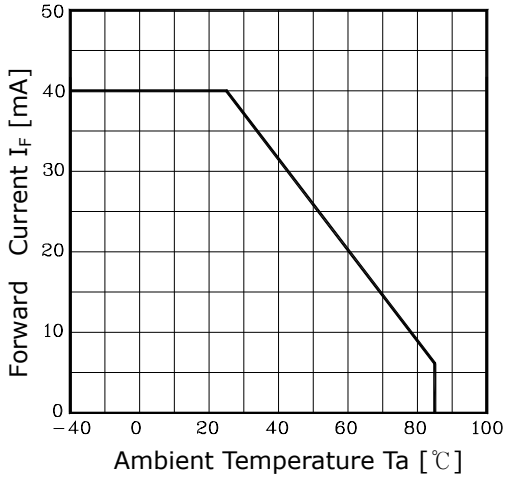


Fig.4 Spectrum Distribution

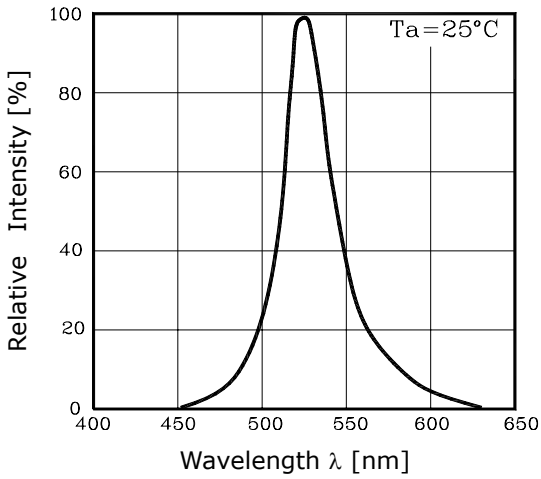


Fig. 5-1 Radiation Diagram(X)

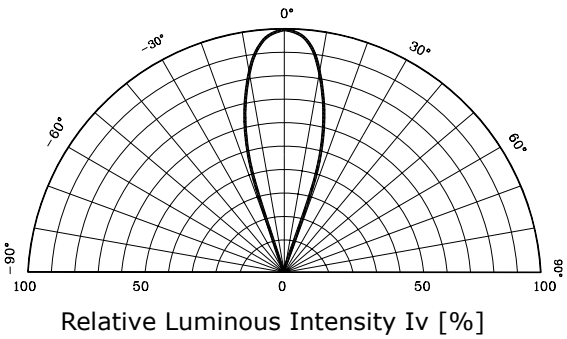
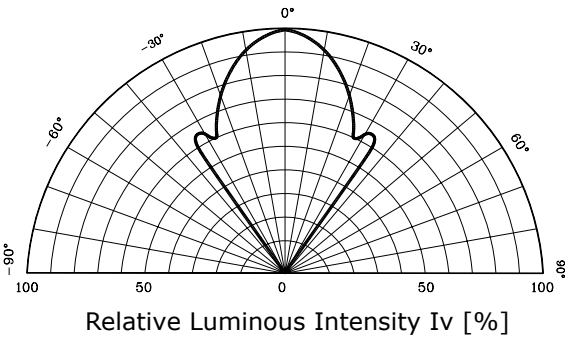


Fig. 5-2 Radiation Diagram(Y)



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