AUK Semiconductor

SPG1316-H

Chip LED Lamp

Features

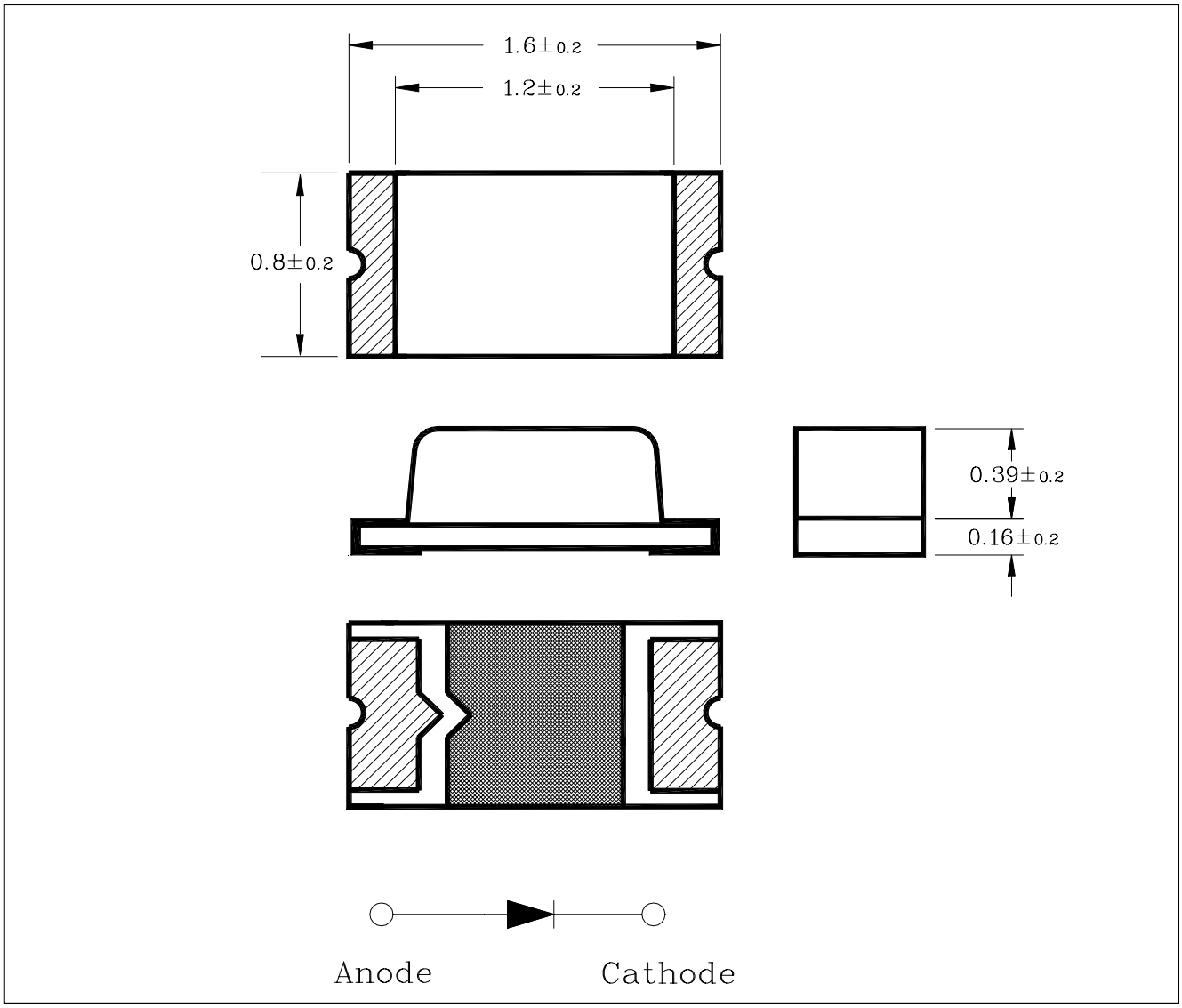
- 1.6mm(L)×0.8mm small size surface mount type
- Thin package of 0.4mm(H) thickness
- Transparent clear lens optic
- Low power consumption type chip LED
- Emitting light green (525nm)

Applications

- LCD backlighting
- Keypad backlighting
- Symbol backlighting
- Front panel indicator lamp

Outline Dimensions

unit : mm

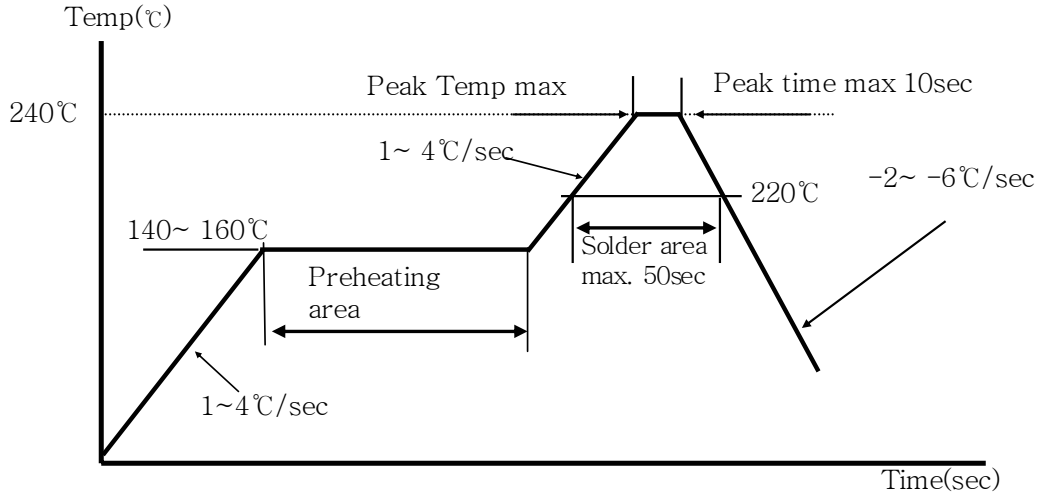


Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Power Dissipation	P_D	80	mW
Forward Current	I_F	20	mA
*[1]Peak Forward Current	I_{FP}	50	mA
Reverse Voltage	V_R	4	V
Operating Temperature	T_{opr}	-25～80	℃
Storage Temperature	T_{stg}	-30～100	℃
*[2]Soldering Temperature	T_{sol}	240℃ for 5 seconds	

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

*2. Recommended soldering Temperature Profile



Electrical Characteristics

Characteristic	Symbol		Test Condition	Min	Typ	Max	Unit
***[3]**Forward Voltage	V_F		I_F= 10mA	2.6	3.0	3.6	V
*[4]Luminous Intensity	I_V		I_F= 10mA	62	100	228	mcd
Peak Wavelength	λ_P		I_F= 10mA	-	525	-	nm
Spectrum Bandwidth	$\Delta\lambda$		I_F= 10mA	-	35	-	nm
Reverse Current	I_R		V_R=4V	-	-	10	uA
*[5]Half Angle	$\theta 1/2$	X	I_F= 10mA	-	±65	-	deg
		Y		-	±70	-	

*3. Forward Voltage Maximum tolerance for ±0.1V

*4. Luminous Intensity Maximum tolerance for each Grade Classification limit is ±18%

(The test result of IF=20mA is only for reference)

*5. θ1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

- Iv / VF / λp Grade Classification

Test Condition @IF=10mA		
Forward Voltage(V)	Luminous Intensity(mcd)	Peak Wavelength(nm)
3 : 2.8~3.0	B : 78~105	A : 515~520
4 : 3.0~3.2	C : 105~140	B : 520~525
5 : 3.2~3.4	D : 140~190	C : 525~530

Characteristic Diagrams

Fig. 1 I_F - V_F

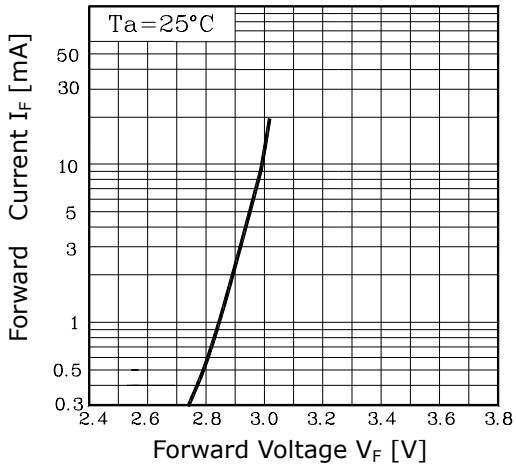


Fig. 2 I_V - I_F

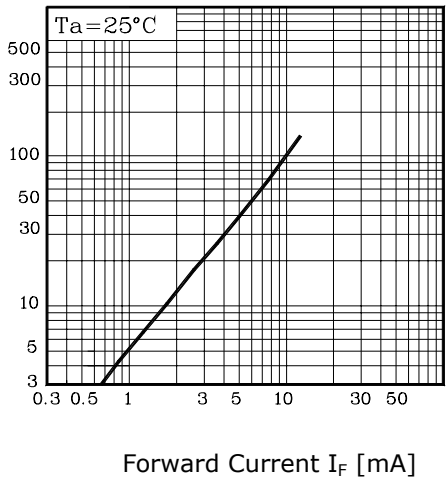


Fig. 3 I_F – Ta

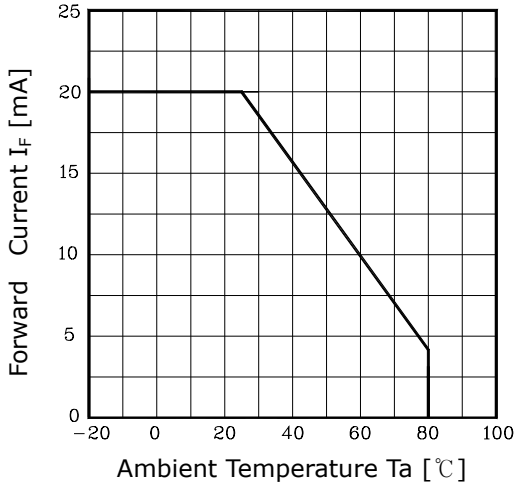


Fig.4 Spectrum Distribution

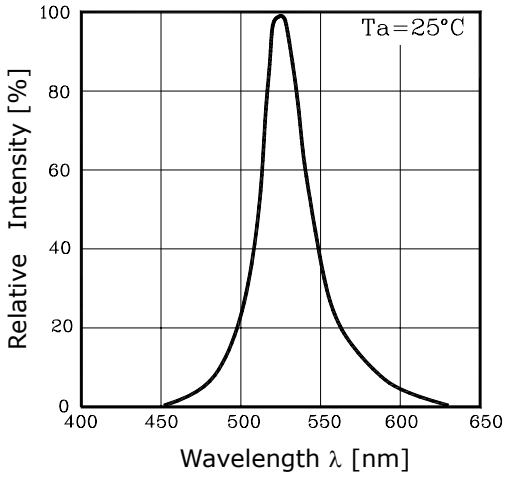


Fig. 5-1 Radiation Diagram(X)

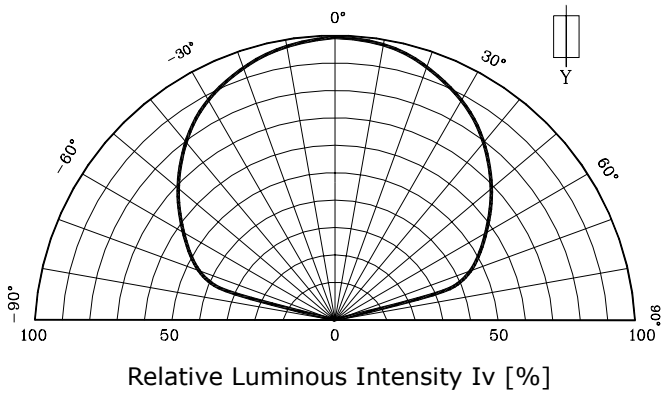
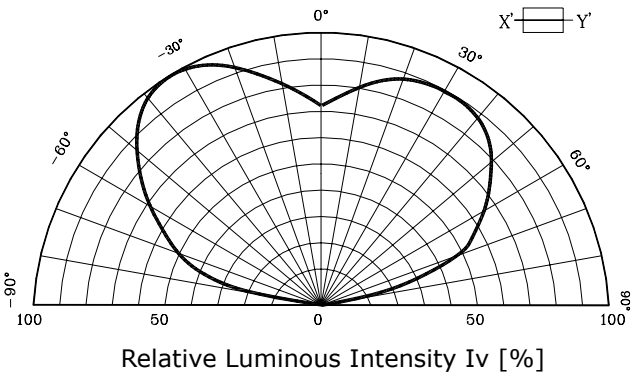


Fig. 5-2 Radiation Diagram(Y)



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