AUK Semiconductor

SY2336-E

High Brightness Chip LED

Features

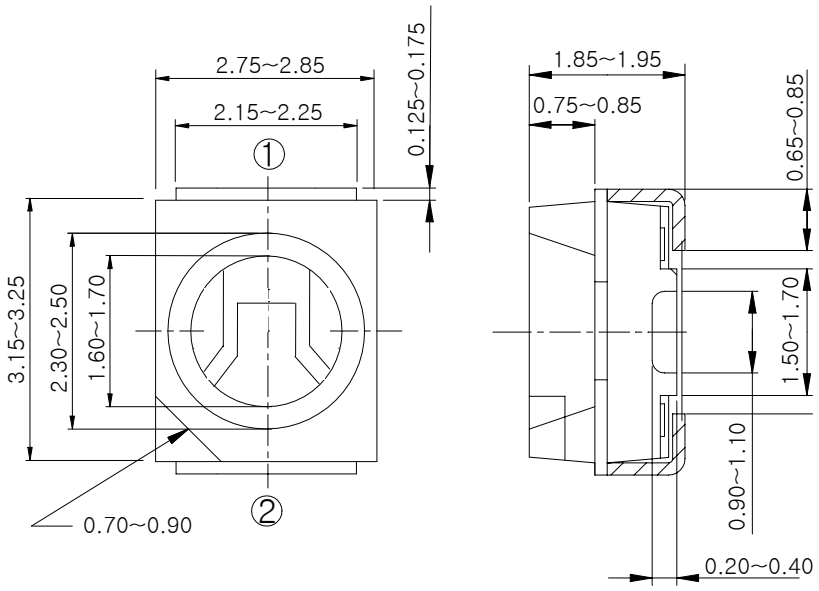
- Colorless transparency lens type
- Using a package with high heat dissipation properties, it can be driven with a large current
- Wide viewing angle
- External dimensions : 3.5(L)×2.8(W)×1.9mm(T) surface mount type

Applications

- Backlighting
- Signal indicator
- Symbol backlighting
- Front panel indicator

Outline Dimensions

unit : mm



PIN Connections
1. Anode
2. Cathode

Absolute Maximum Ratings

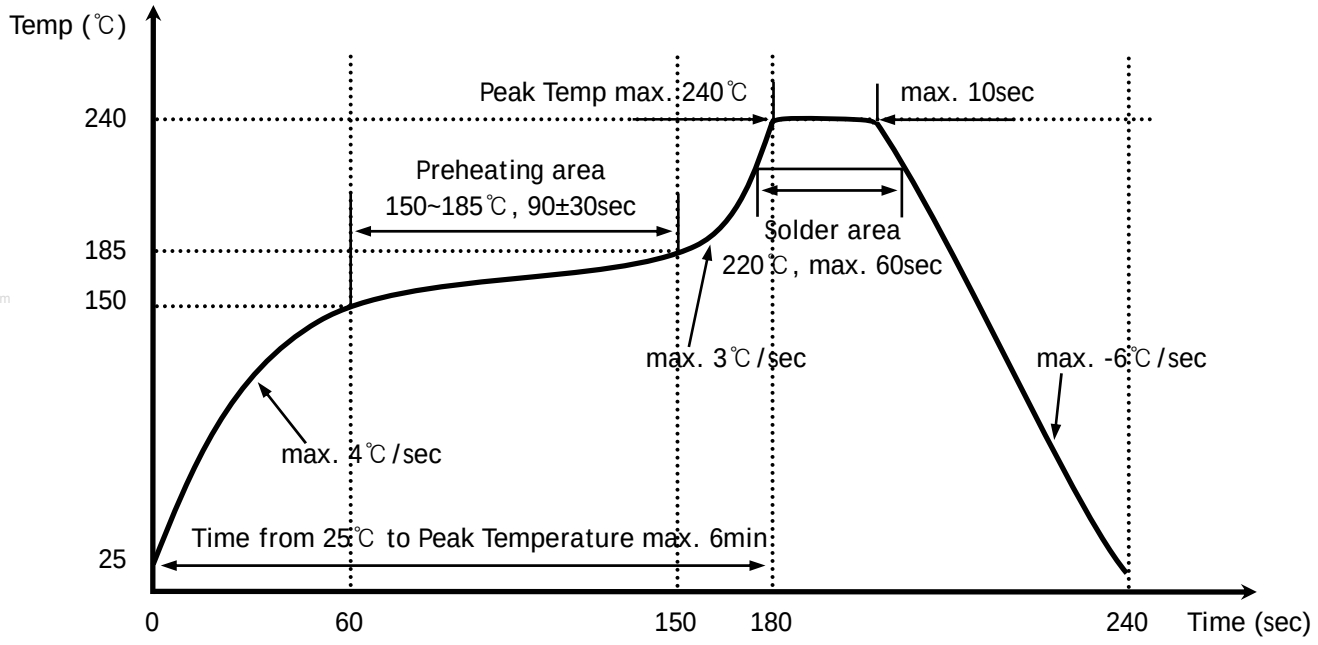
(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	70	mW
Forward current	I_F	30	mA
*1Peak forward current	I_{FP}	50	mA
Reverse voltage	V_R	5	V
Operating temperature range	T_{opr}	-40～100	℃
Storage temperature range	T_{stg}	-40～110	℃
*2Soldering temperature	T_{sol}	240℃ for 10 seconds	

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

*2. Recommended reflow soldering temperature profile

- Preheating 150℃ to 185℃ within 120 seconds soldering 240℃ within 10 seconds
  Gradual cooling (Avoid quenching)



Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	V_F	I_F= 20mA	1.95	-	2.4	V
*3Luminous intensity	I_V	I_F= 20mA	120	-	280	mcd
Dominant wavelength	λ_D	I_F= 20mA	585	591	597	nm
Spectrum bandwidth	$\Delta\lambda$	I_F= 20mA	-	17	-	nm
Reverse current	I_R	V_R=5V	-	-	10	μA
*4Half angle	θ1/2	I_F= 20mA	-	±60	-	deg

*3. Luminous intensity maximum tolerance for each grade classification limit is ±18%
(The test result of I_F=20mA is only for reference)

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

- I_V / V_F / λ_D Grade Classification (Ta=25℃)

Test Condition @ I_F=20mA		
Forward Voltage [V]	Luminous Intensity [mcd]	Dominant Wavelength [nm]
1 : 1.95~2.2	L : 120~175	a : 585~591
2 : 2.2~2.4	M : 175~280	b : 591~597

(Do not use to combine grade classification. It must be used separately grade classification)

Characteristic Diagrams

Fig. 1 I_F - V_F

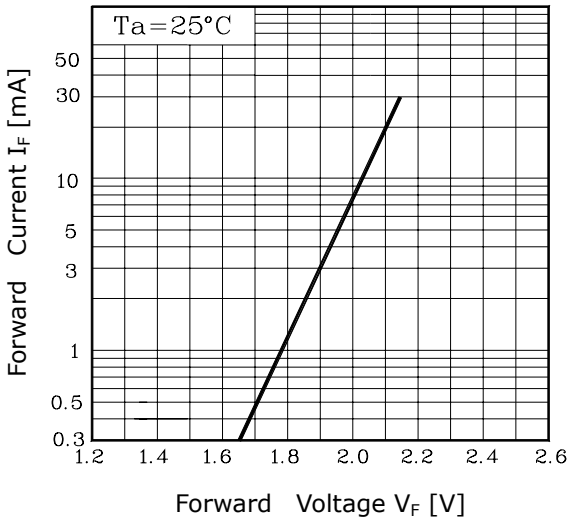


Fig. 2 I_V - I_F

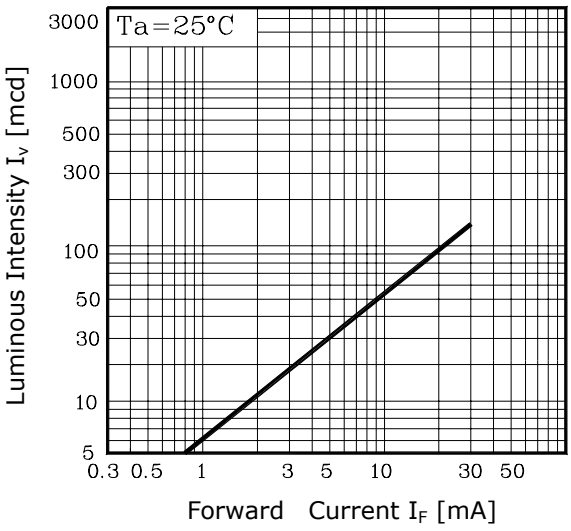


Fig. 3 I_F – Ta

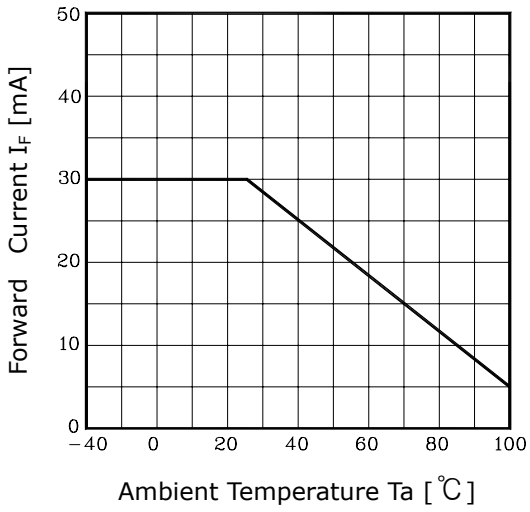


Fig.4 Spectrum Distribution

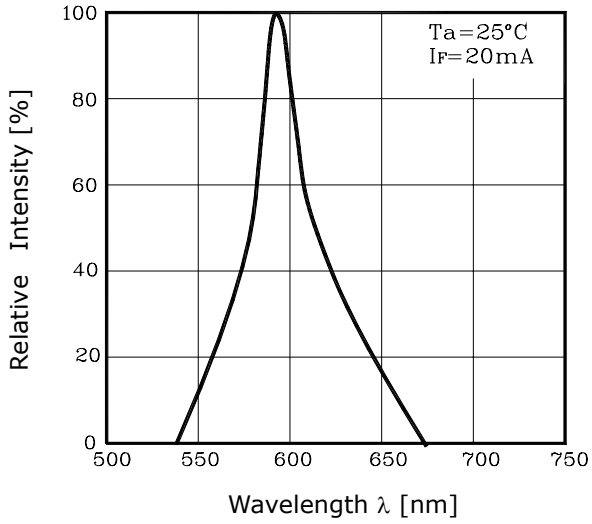
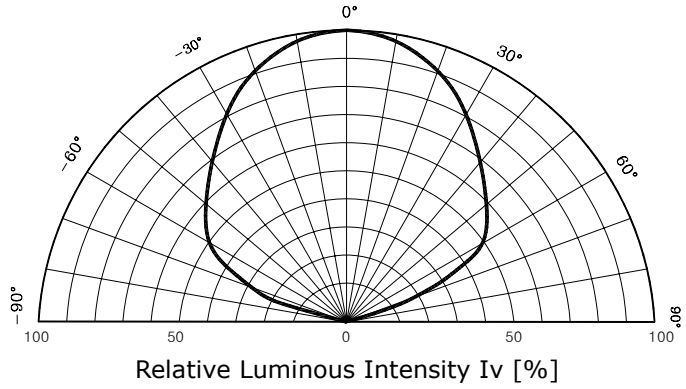


Fig. 5 Radiation Diagram



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