AUK Semiconductor

SA1316

Chip LED

Features

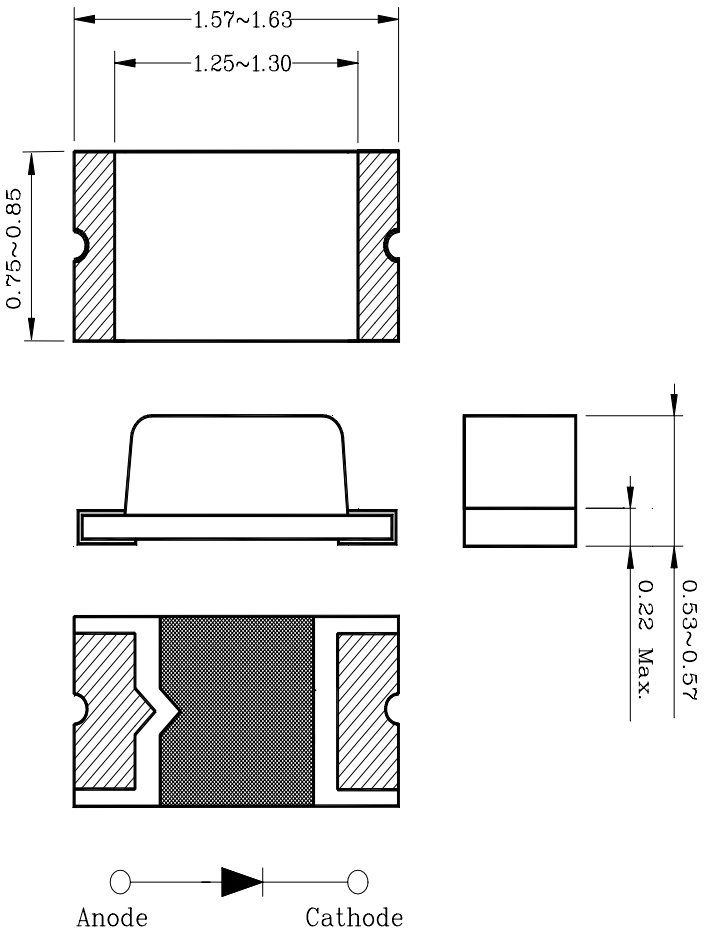
- 1.6mm(L)×0.8mm(W) small size surface mount type
- Thin package of 0.55mm(H) thickness
- Transparent clear lens optic
- Low power consumption type chip LED

Applications

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

Outline Dimensions

unit : mm



Absolute Maximum Ratings

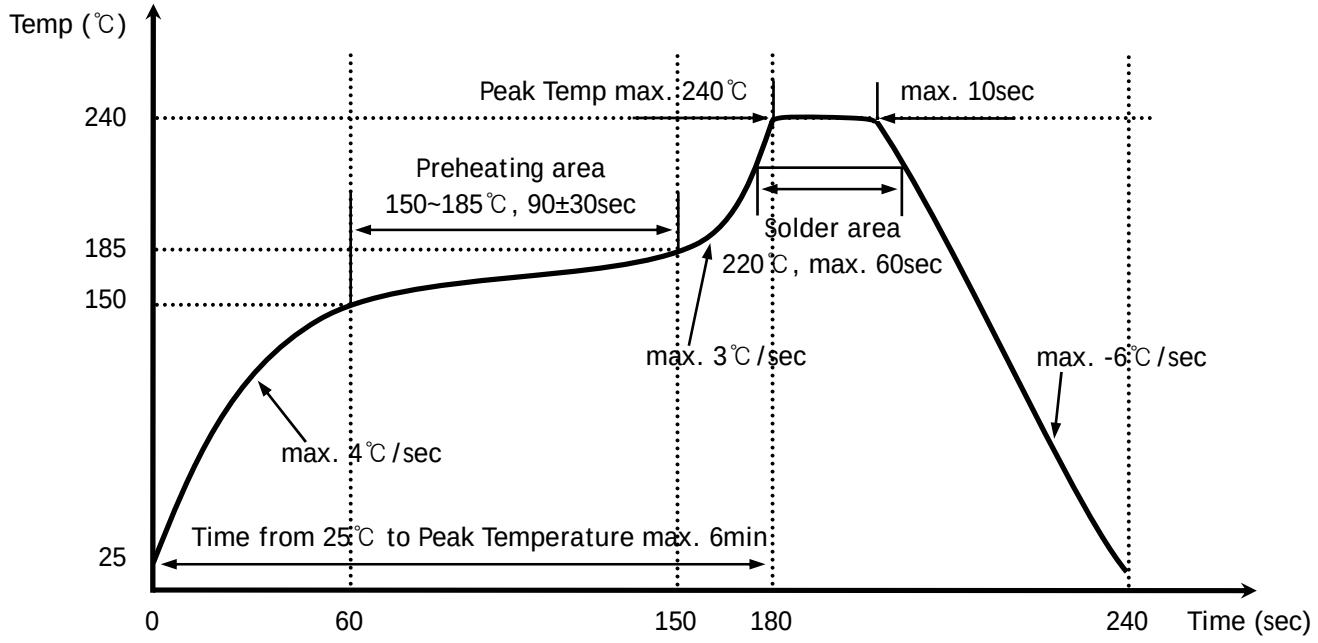
(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	57	mW
Forward current	I_F	25	mA
*1Peak forward current	I_{FP}	50	mA
Reverse voltage	V_R	4	V
Operating temperature range	T_{opr}	-25～80	°C
Storage temperature range	T_{stg}	-30～100	°C
*2Soldering temperature	T_{sol}	240°C 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= 10mA	-	2.0	2.3	V
*3Luminous intensity	I_V		I_F= 10mA	2.6	-	10	mcd
Peak wavelength	λ_P		I_F= 10mA	-	630	-	nm
Spectrum bandwidth	$\Delta\lambda$		I_F= 10mA	-	35	-	nm
Reverse current	I_R		V_R=4V	-	-	10	uA
*4Half angle	$\theta 1/2$	X	I_F= 10mA	-	±65	-	deg
		Y		-	±70	-	

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

*3. Luminous intensity maximum tolerance for each grade classification limit is ±18%

*3. Luminous Intensity Classification

D	E	F
2.6~4.1	4.1~6.6	6.6~10

Characteristic Diagrams

Fig. 1 I_F - V_F

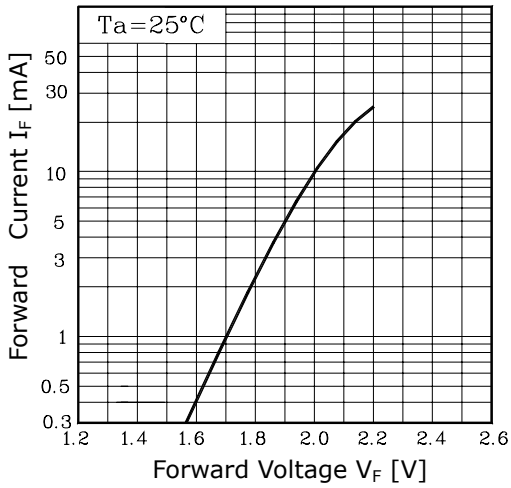


Fig. 2 I_V - I_F

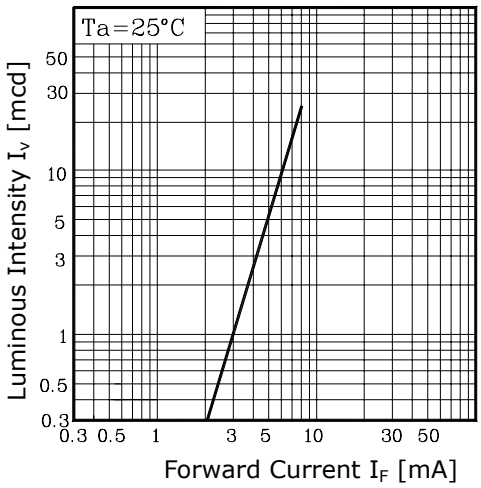


Fig. 3 I_F – Ta

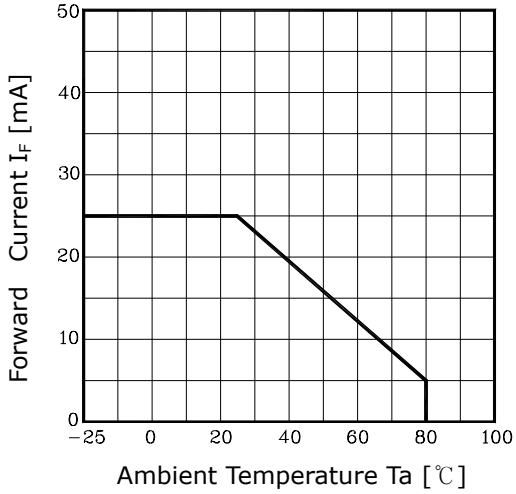


Fig.4 Spectrum Distribution

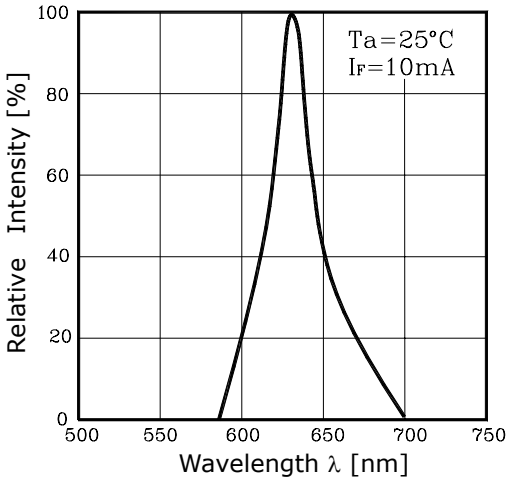


Fig. 5-1 Radiation Diagram(X)

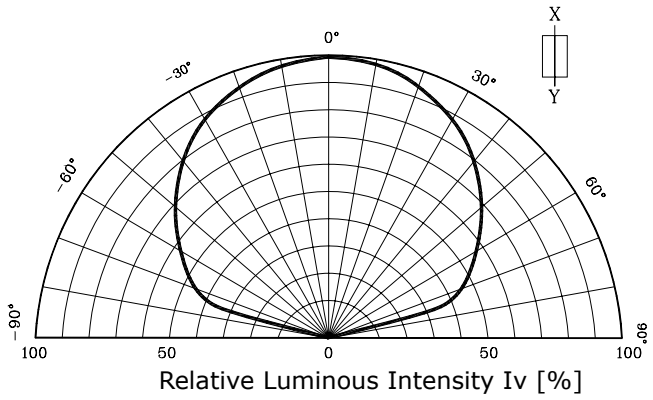
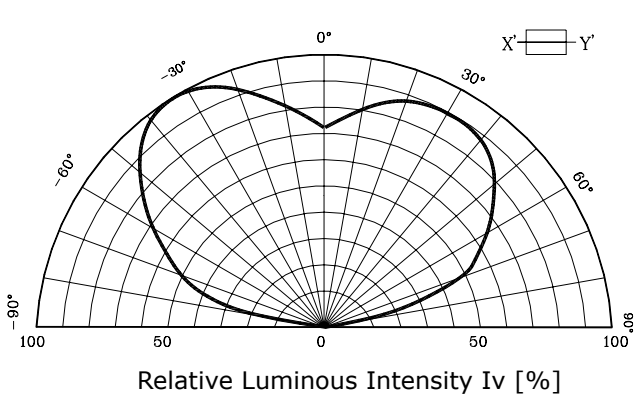


Fig. 5-2 Radiation Diagram(Y)



The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.