AUK Semiconductor

SM2233-D

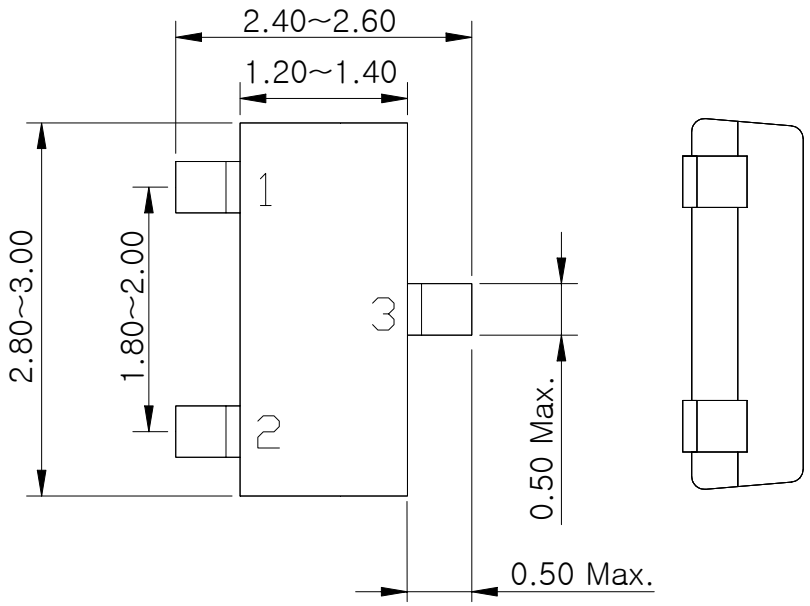
Chip LED

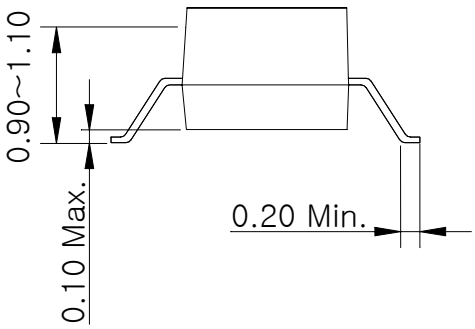
Features

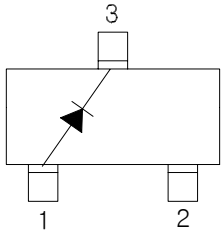
- Colorless diffusion lens type
- Compact type
- Radiation size 2.9mm(L)×1.3mm(W) surface mount type.

Outline Dimensions

unit : mm







PIN Connections
1. Anode
2. N.C.
3. Cathode

Absolute Maximum Ratings

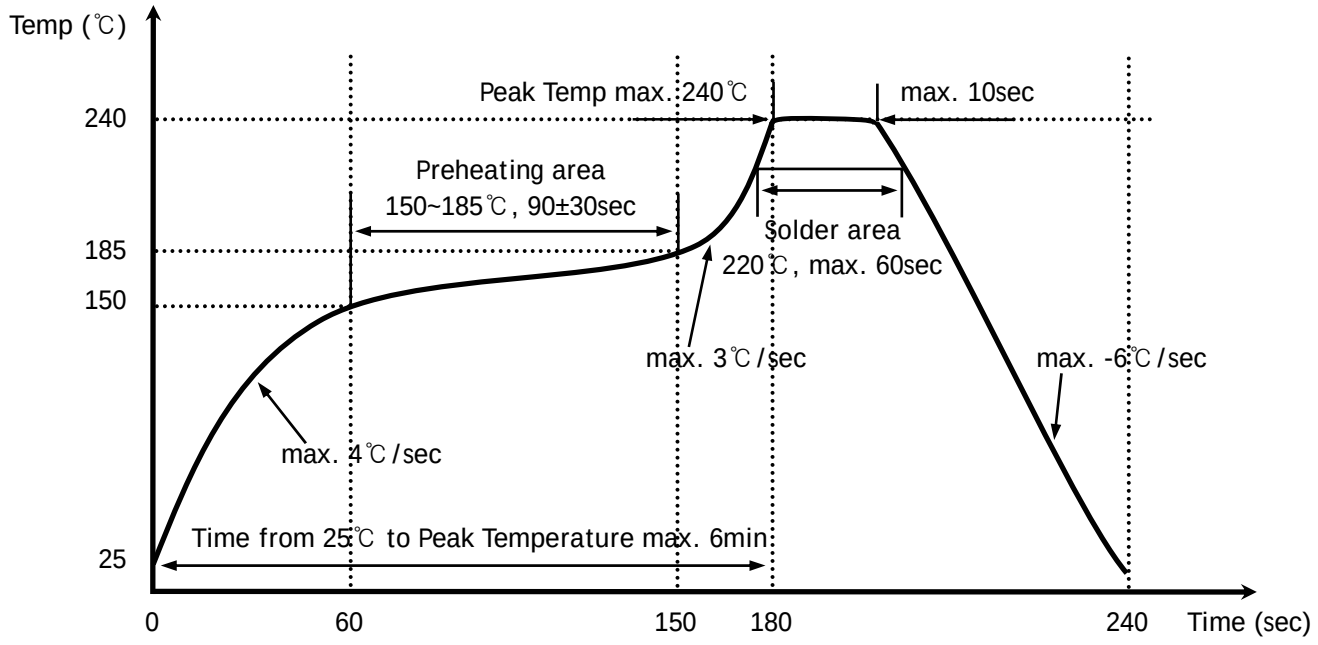
(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	63	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	℃
Storage temperature range	T_{stg}	-30～100	℃
*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	-	2.1	2.5	V
Luminous intensity	I_V	I_F= 20mA	17	-	-	mcd
Dominant wavelength	λ_D	I_F= 20mA	569	572	576	nm
Spectrum bandwidth	$\Delta\lambda$	I_F= 20mA	-	30	-	nm
Reverse current	I_R	V_R=4V	-	-	10	uA
*3Half angle	θ1/2	I_F= 20mA	-	±55	-	deg
			-	±80	-	

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

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

Characteristic Diagrams

Fig. 1 I_F - V_F

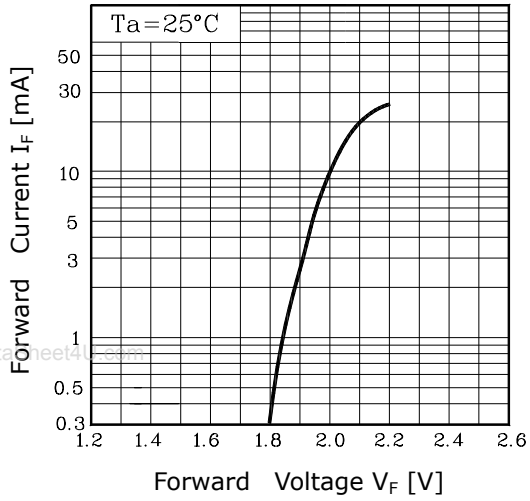


Fig. 2 I_V - I_F

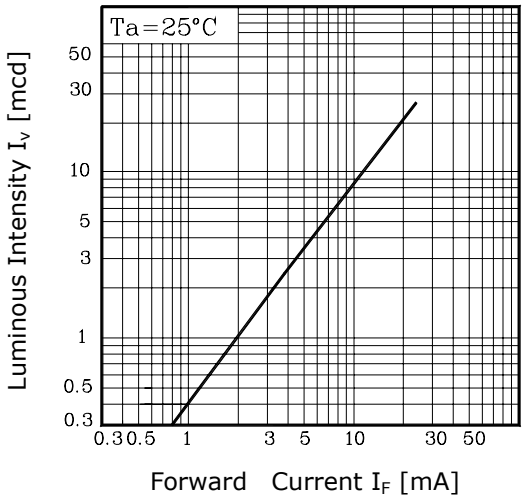


Fig. 3 I_F – Ta

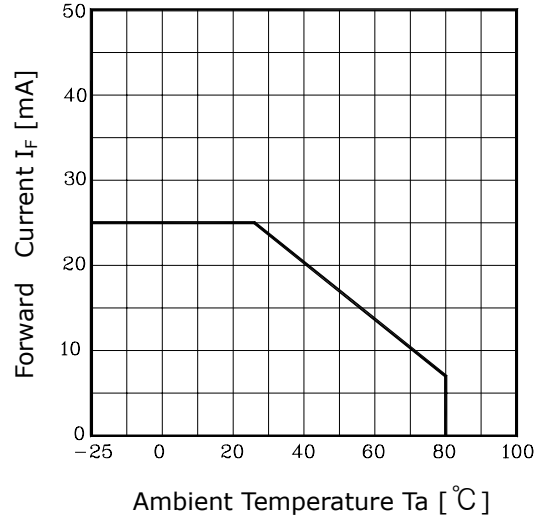


Fig.4 Spectrum Distribution

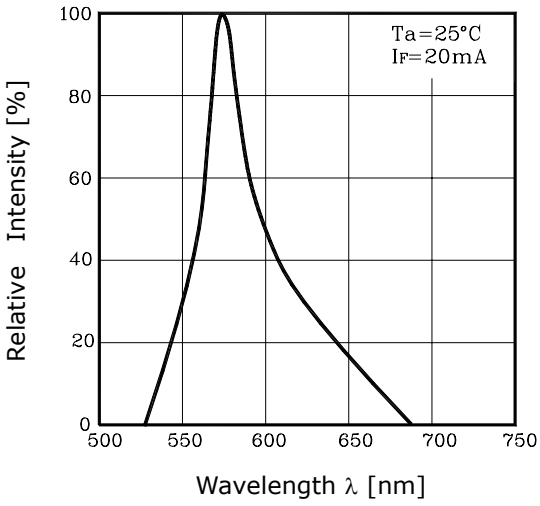


Fig. 5-1 Radiation Diagram(X)

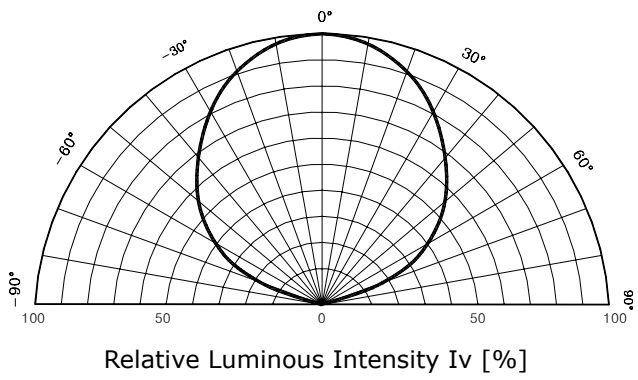
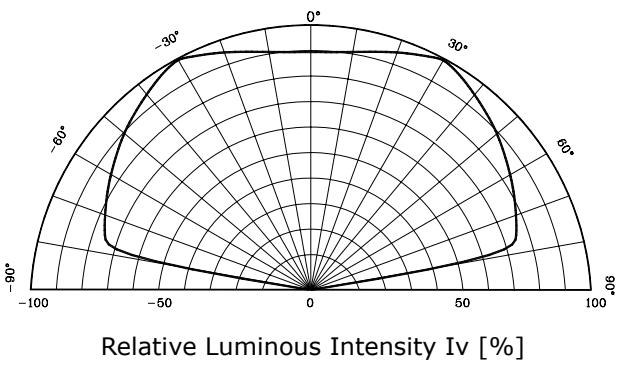


Fig. 5 Radiation Diagram



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