AUK Semiconductor

SI5314-H / SI5314-H(B)

IRED

Features

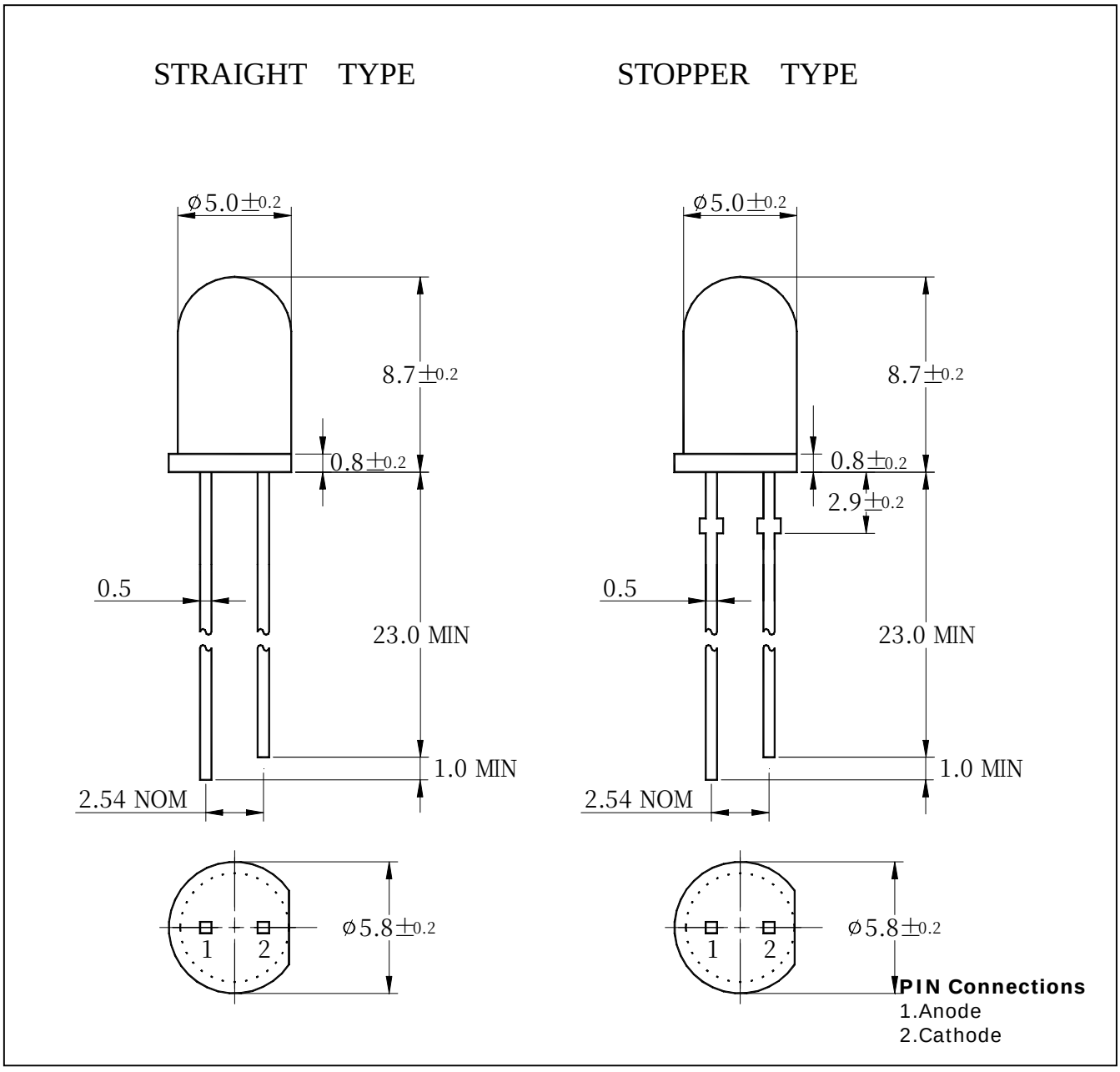
- Colorless transparency lens type
- ϕ5mm(T-13/4) all plastic mold type
- Low power consumption
- High radiant intensity

Applications

- Infrared remote control and free air transmission systems with low forward voltage and comfortable radiation angle requirements in combination with PIN photodiodes or phototransistors.

Outline Dimensions

unit : mm



Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Power Dissipation	P_D	150	mW
Forward Current	I_F	100	mA
*1Peak Forward Current	I_{FP}	1	A
Reverse Voltage	V_R	4	V
Operating Temperature	T_{opr}	-25 85	℃
Storage Temperature	T_{stg}	-30 100	℃
*2Soldering Temperature	T_{sol}	260℃ for 5 seconds	

*1.Duty ratio = 1/16, Pulse width = 0.1ms
*2.Keep the distance more than 2.0mm from PCB to the bottom of IRED package

Electrical Characteristics

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F= 50mA	-	1.3	1.7	V
Radiant Intensity	I_E	I_F= 50mA	15	35	-	mW/Sr
Peak Wavelength	λ_P	I_F= 50mA	-	950	-	nm
Spectrum Bandwidth	$\Delta\lambda$	I_F= 50mA	-	50	-	nm
Reverse Current	I_R	V_R=4V	-	-	10	uA
*3Half angle	$\theta^1/_2$	I_F= 50mA	-	±25	-	deg

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

Characteristic Diagrams

Fig. 1 I_F - V_F

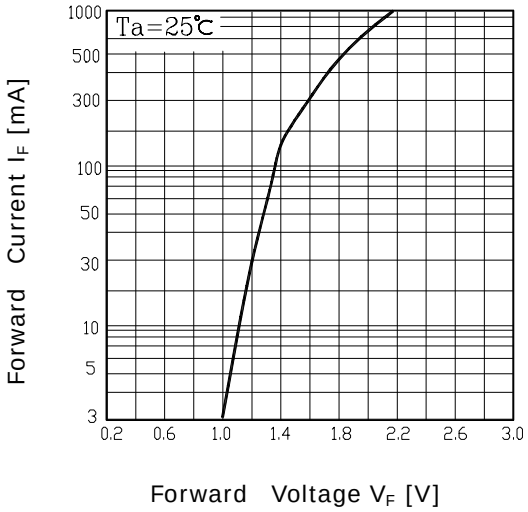


Fig. 2 I_E - I_F

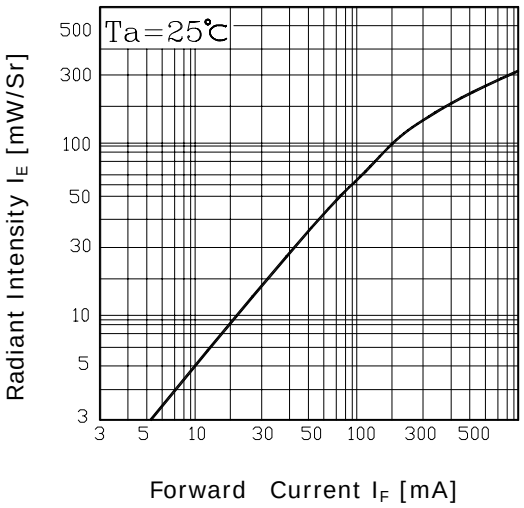


Fig. 3 I_F – Ta

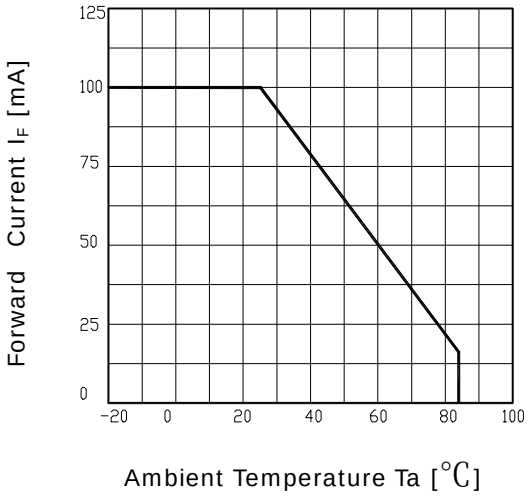


Fig.4 Spectrum Distribution

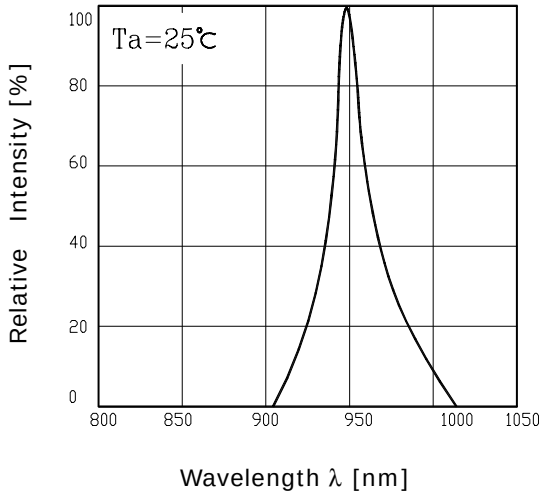


Fig. 5 Radiation Diagram

