

**Features**

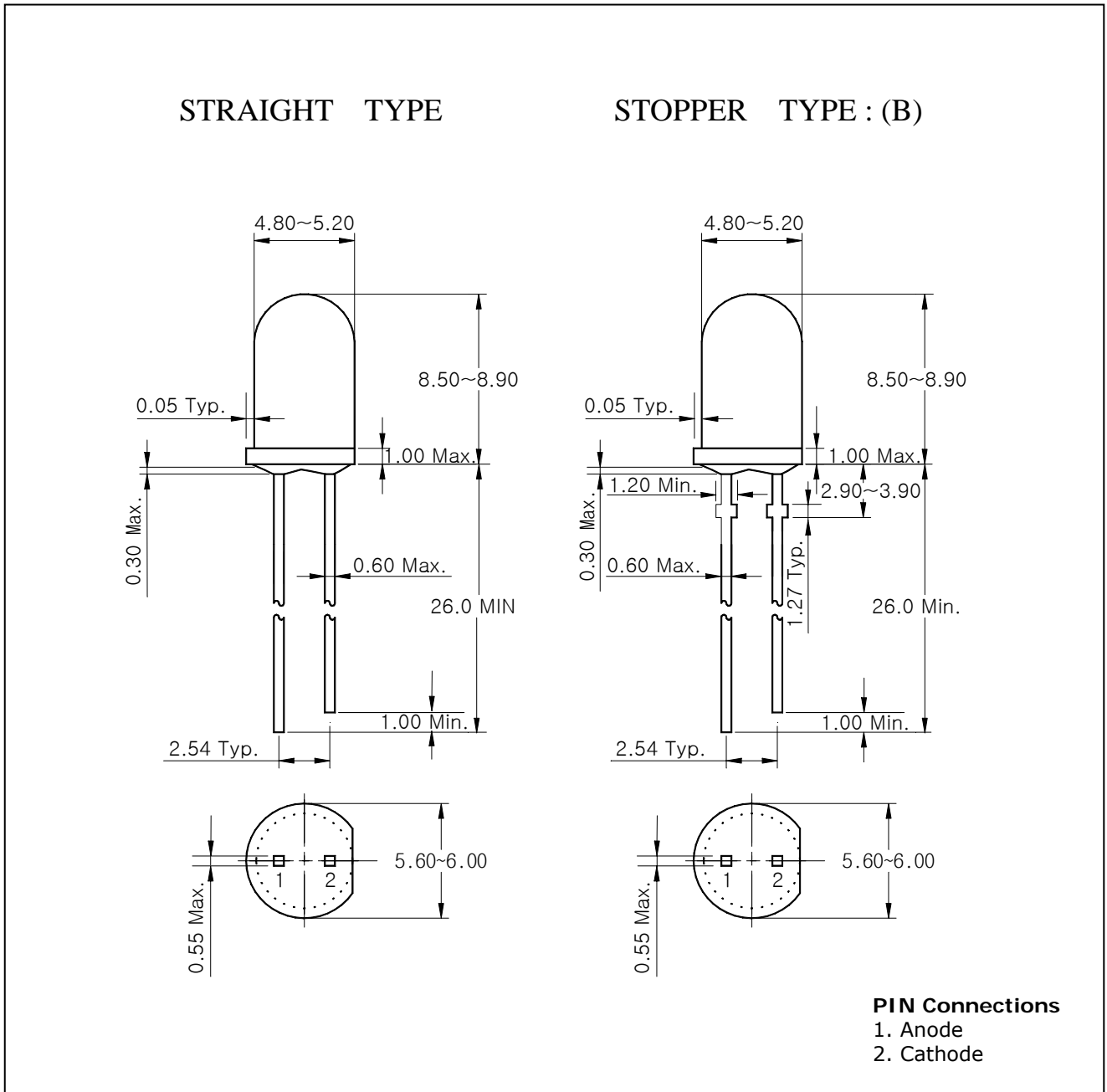
- Purple Colored transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Low power consumption
- High radiant intensity

**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



# SI5414-H / SI5414-H(B)

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	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 range	$T_{opr}$	-25~85	°C
Storage temperature range	$T_{stg}$	-30~100	°C
*2Soldering temperature	$T_{sol}$	260°C for 10 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 / Optical Characteristics

(Ta=25°C)

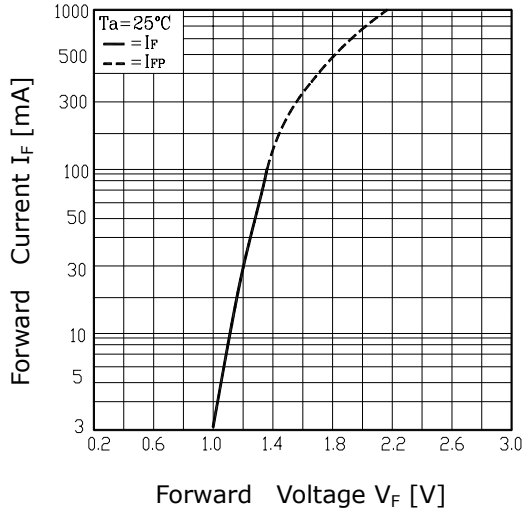
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F= 50mA$	-	1.3	1.5	V
Radiant intensity	$I_E$	$I_F= 50mA$	20	32	-	mW/Sr
Peak wavelength	$\lambda_p$	$I_F= 50mA$	-	950	-	nm
Spectrum bandwidth	$\Delta\lambda$	$I_F= 50mA$	-	50	-	nm
Reverse current	$I_R$	$V_R=4V$	-	-	10	uA
*3Half angle	$\theta^{1/2}$	$I_F= 50mA$	-	±25	-	deg

\*3. 1)  $\theta^{1/2}$  is the off-axis angle where the luminous intensity is 1/2 the peak intensity

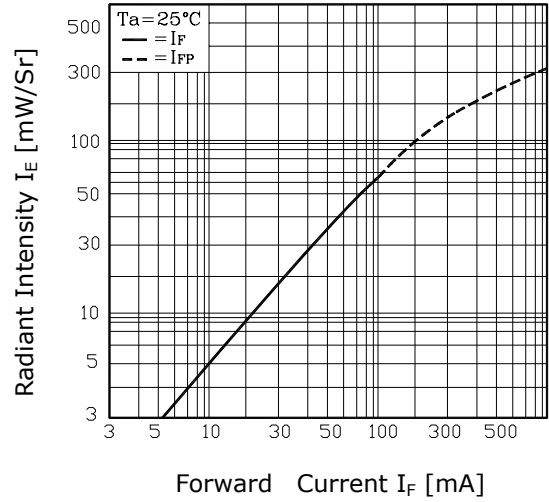
2) Half angle( $\theta^{1/2}$ ) is ±30 Degrees in transmitter

## Characteristic Diagrams

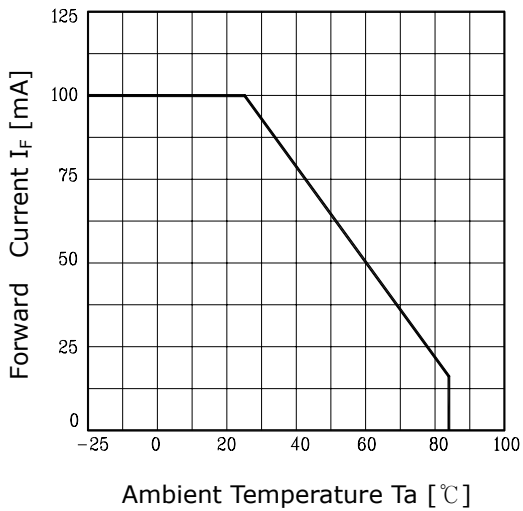
**Fig. 1  $I_F - V_F$**



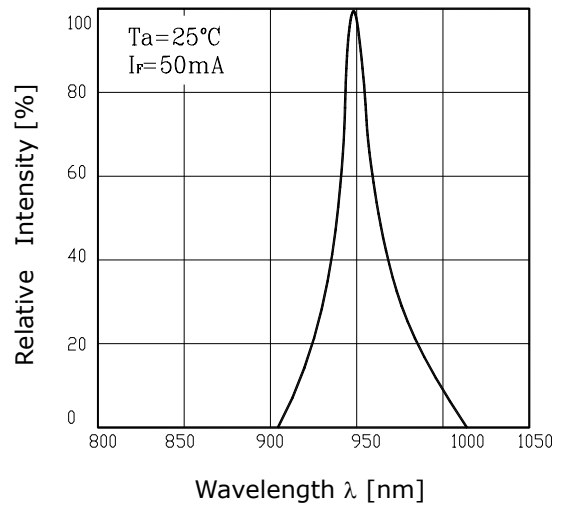
**Fig. 2  $I_E - I_F$**



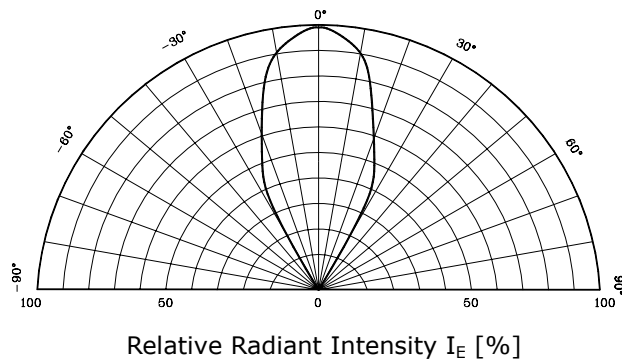
**Fig. 3  $I_F - T_a$**



**Fig. 4 Spectrum Distribution**



**Fig. 5 Radiation Diagram**



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