SM3317-D / SM3317-D(B)

High Brightness LED Lamp

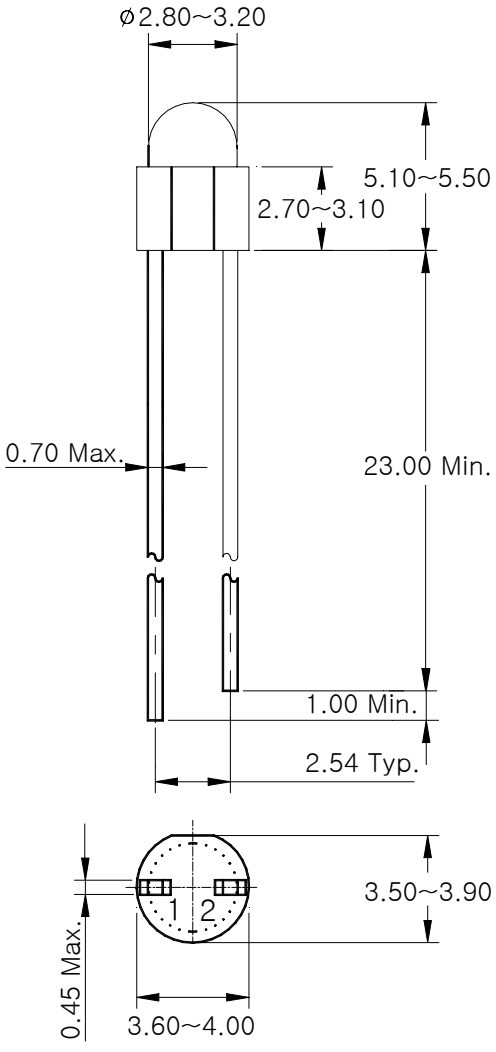
Features

- ϕ3mm(T-1) all plastic mold type
- Available on tape and reel

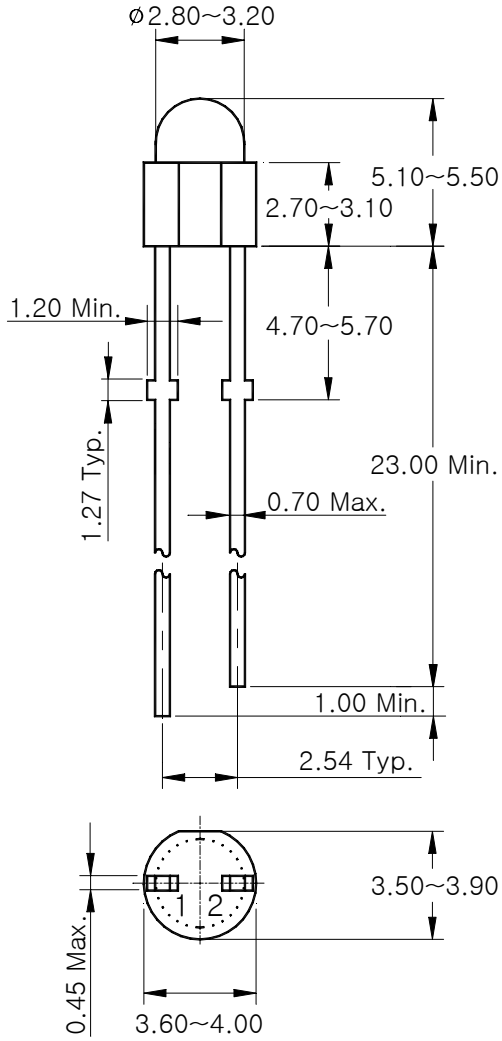
Outline Dimensions

unit : mm

STRAIGHT TYPE



STOPPER TYPE : (B)



PIN Connections
1. Anode
2. Cathode

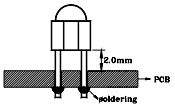
Absolute Maximum Ratings

(Ta=25℃)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	70	mW
Forward current	I_F	30	mA
*[1]Peak forward current	I_{FP}	50	mA
Reverse voltage	V_R	4	V
Operating temperature range	T_{opr}	-25～85	℃
Storage temperature range	T_{stg}	-30～100	℃
*[2]Soldering temperature	T_{sol}	260℃ 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 LED package



Electrical / Optical Characteristics

(Ta=25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	V_F	I_F= 20mA	1.9	-	2.3	V
*[4]Luminous intensity	I_V	I_F= 20mA	230	-	780	mcd
Dominant wavelength	λ_D	I_F= 20mA	569	572	575	nm
Spectrum bandwidth	$\Delta\lambda$	I_F= 20mA	-	30	-	nm
Reverse current	I_R	V_R=4V	-	-	10	uA
*[3]Half angle	θ1/2	I_F= 20mA	-	±22	-	deg

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

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

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

Test Condition @I_F = 20mA		
Forward Voltage [V]	Luminous Intensity [mcd]	Dominant Wavelength [nm]
1 : 1.9~2.1	N : 230~350	a : 569~571
		b_1 : 571~572
	O : 350~520	
2 : 2.1~2.3		b_2 : 572~573
	P : 520~780	c : 573~575

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

Characteristic Diagrams

Fig. 1 I_F - V_F

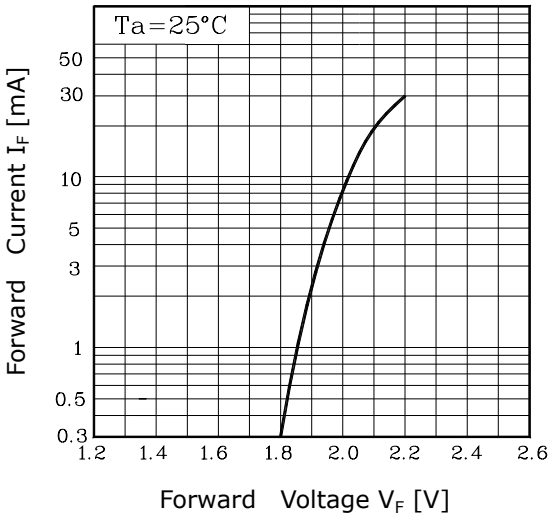


Fig. 2 I_V - I_F

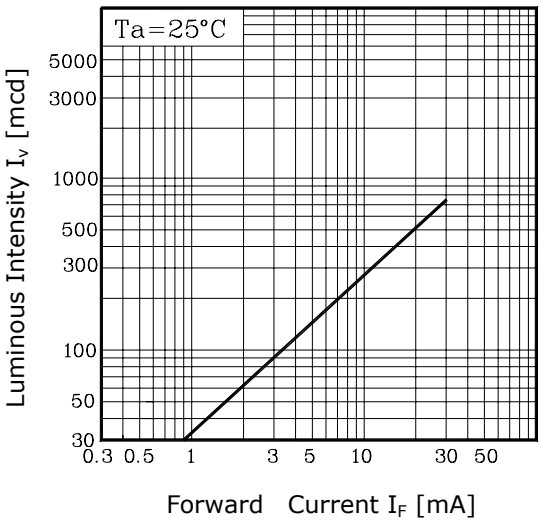


Fig. 3 I_F – Ta

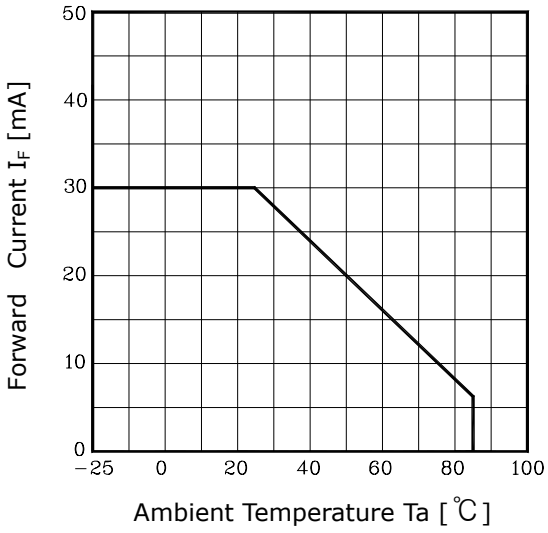


Fig.4 Spectrum Distribution

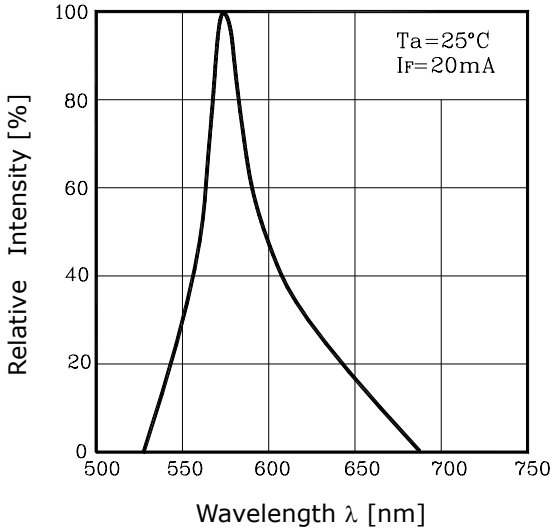
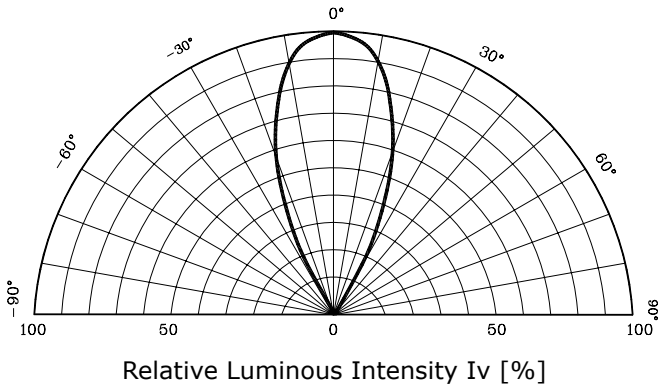


Fig. 5 Radiation Diagram



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