

High Efficiency LED Lamp

unit: mm

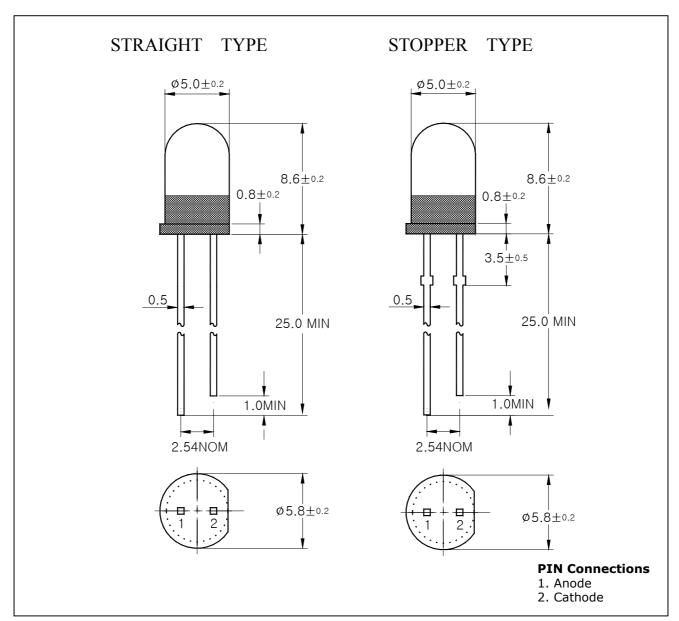
Features

- Colorless transparency lens type
- \$\phi 5mm(T-13/4) all plastic mold type
- Super luminosity

Application

- Traffic Signal
- Massage Board

Outline Dimensions

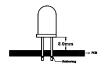


Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit	
Power Dissipation	P_{D}	110	mW	
Forward Current	I_{F}	40	mA	
*1Peak Forward Current	${ m I}_{\sf FP}$	65	mA	
Reverse Voltage	V_R	4	V	
Operating Temperature	T_{opr}	-20~85	°C	
Storage Temperature	T _{stg}	-30~100	°C	
*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 LED package



Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Forward Voltage	V_{F}	I _F = 20mA	1.8	2.1	2.5	V
* ⁴ Luminous Intensity	I_{V}	$I_F = 20 \text{mA}$	1170	3300	5940	mcd
Peak Wavelength	λ_{P}	$I_F = 20mA$	-	630	ı	nm
Spectrum Bandwidth	Δλ	$I_F = 20mA$	-	17	ı	nm
Reverse Current	I_{R}	V _R =4V	-	ı	10	uA
* ³ Half Angle	θ1/2	I _F = 20mA	-	±20	-	deg

^{*3.} θ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

^{*4.} Luminous Intensity classification

R	S	T	U
1170~1760	1760~2640	2640~3960	3960~5940

^{*4.} Luminous Intensity Maximum tolerance for each Grade Classification limit is $\pm 18\%$

Characteristic Diagrams

Fig. 1 I_F - V_F

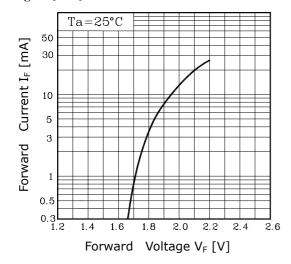


Fig. 2 $I_{\rm V}$ - $I_{\rm F}$

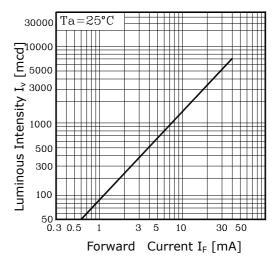


Fig. $3 I_F - Ta$

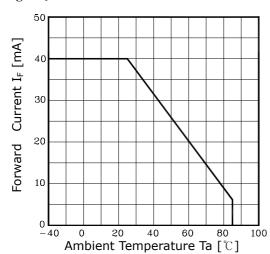


Fig.4 Spectrum Distribution

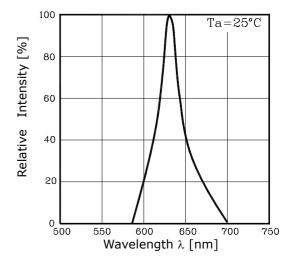
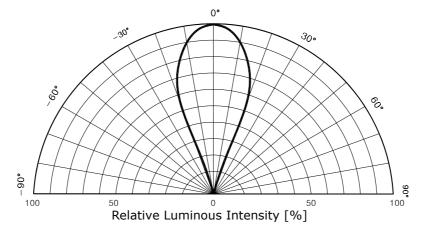


Fig. 5 Radiation Diagram



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