

Oval Type High Efficiency LED Lamp

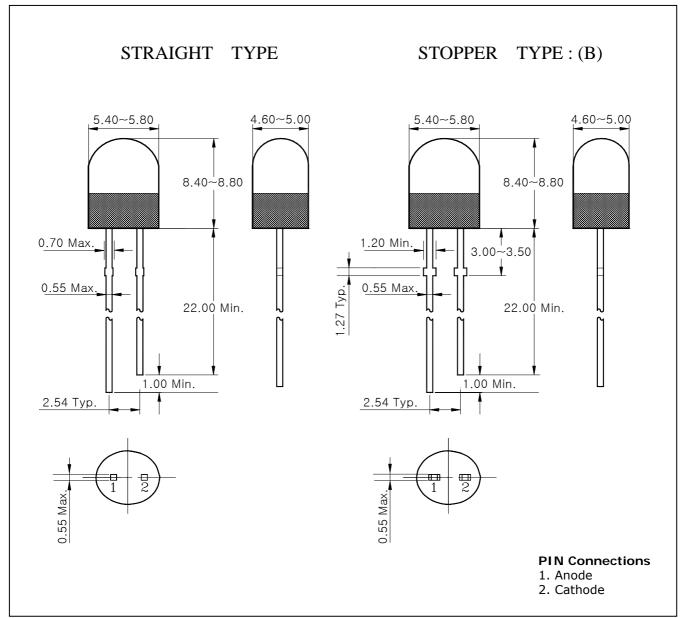
Features

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

Application

- Traffic Signal
- Message Board

Outline Dimensions unit: mm



KSD-O3C014-000

Absolute Maximum Ratings

 $(Ta=25^{\circ}C)$

Characteristic	Symbol	Ratings	Unit
Power dissipation	P_{D}	100	mW
Forward current	${ m I}_{\sf F}$	40	mA
* ¹ Peak forward current	I_{FP}	50	mA
Reverse voltage	V_R	4	V
Operating temperature range	T_{opr}	-25~85	${\mathbb C}$
Storage temperature range	T _{stg}	-30~100	${\mathbb C}$
*2Soldering 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

 $(Ta=25^{\circ}C)$

					(
Characteristic	Symbol	Test Condition	Min	Тур	Max	Unit
Forward voltage	V_{F}	I _F = 20mA	-	2.1	2.5	V
* ⁴ Luminous intensity	I_{V}	I _F = 20mA	1010	-	2100	mcd
Dominant wavelength	λ_{D}	I _F = 20mA	614	622	630	nm
Spectrum bandwidth	Δ_{λ}	I _F = 20mA	-	17	-	nm
Reverse current	I_{R}	V _R =4V	-	-	10	uA
* ³ Half angle	θ1/2 X	I _F = 20mA	-	±30	-	deg
	θ1/2		-	±15	-	

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

^{*4.} Luminous Intensity Classification

Q ₂	R	S ₁
1010~1300	1300~1700	1700~2100

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^{*4}. Luminous intensity maximum tolerance for each grade classification limit is $\pm 18\%$

Characteristic Diagrams

Fig. 1 I_F - V_F

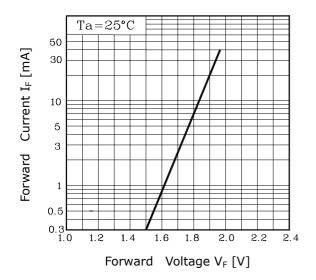


Fig. 2 I_V - I_F

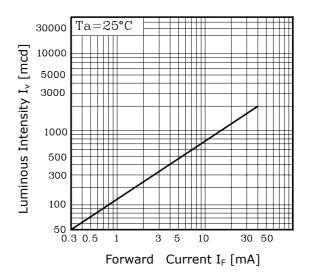


Fig. $3 I_F - Ta$

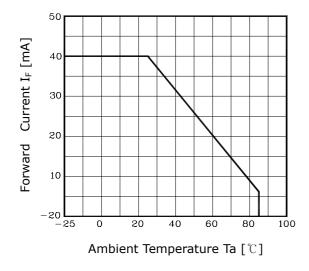


Fig.4 Spectrum Distribution

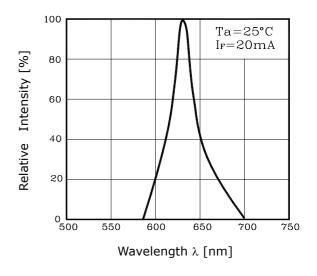
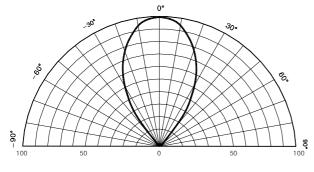
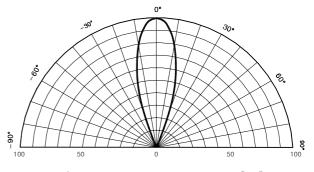


Fig. 5-1 Radiation Diagram(X)



Relative Luminous Intensity Iv [%]

Fig. 5-2 Radiation Diagram(Y)



Relative Luminous Intensity Iv [%]

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