





### **Features**

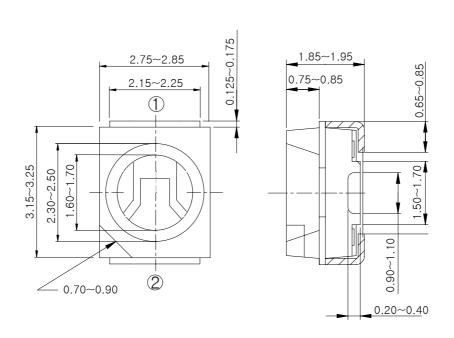
- Colorless transparency lens type
- Using a package with high heat dissipation properties, it can be driven with a large current
- Wide viewing angle
- External dimensions : 3.5(L)×2.8(W)×1.9mm(T) surface mount type

## **Applications**

- Backlighting
- Signal indicator
- Symbol backlighting
- Front panel indicator

# **Outline Dimensions**

unit: mm



#### **PIN Connections**

- 1. Anode
- 2. Cathode

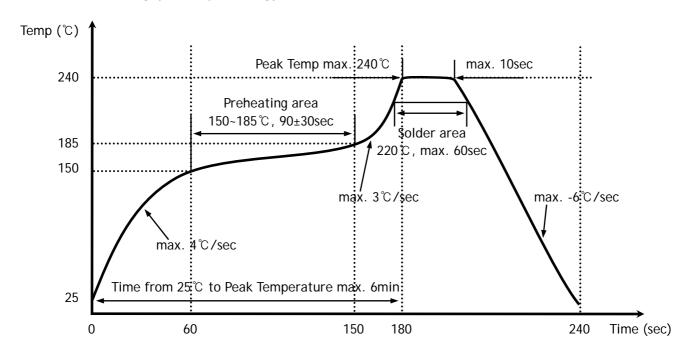
KSD-O8V007-001

**Absolute Maximum Ratings** 

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

Characteristic	Symbol	Rating	Unit
Power dissipation	$P_D$	70	mW
Forward current	${ m I}_{\sf F}$	30	mA
*1Peak forward current	${ m I}_{\sf FP}$	50	mA
Reverse voltage	$V_R$	5	V
Operating temperature range	T <sub>opr</sub>	-40~100	$^{\circ}$
Storage temperature range	T <sub>stg</sub>	-40~110	$^{\circ}$
*2Soldering temperature	T <sub>sol</sub>	240°C for 10 seconds	

<sup>\*1.</sup>Duty ratio = 1/16, Pulse width = 0.1ms



**Electrical / Optical Characteristics** 

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	$V_{F}$	I <sub>F</sub> = 20mA	1.95	-	2.4	V
* <sup>3</sup> Luminous intensity	$I_{V}$	I <sub>F</sub> = 20mA	43	-	155	mcd
Dominant wavelength	$\lambda_{D}$	I <sub>F</sub> = 20mA	568	571	574	nm
Spectrum bandwidth	$\Delta_{\lambda}$	I <sub>F</sub> = 20mA	-	30	-	nm
* <sup>4</sup> Half angle	θ1/2	I <sub>F</sub> = 20mA	-	±60	-	deg

<sup>\*2.</sup> Recommended reflow soldering temperature profile

- \*3. Luminous intensity maximum tolerance for each grade classification limit is  $\pm 18\%$  (The test result of  $I_F$ =20mA is only for reference)
- \*4.  $\theta$ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity
- $V_F / I_V / \lambda_D$  Grade Classification (Ta=25°C)

Test Condition @ I <sub>F</sub> =20mA					
Forward Voltage [V]	Luminous Intensity [mcd]	Dominant Wavelangth [nm]			
1 : 1.95~2.2 2 : 2.2~2.4	J : 43~68	a:568~570			
	K: 68~100	b : 570~572			
	L: 100~155	c : 572~574			

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

# **Characteristic Diagrams**

Fig. 1  $I_F$  -  $V_F$ 

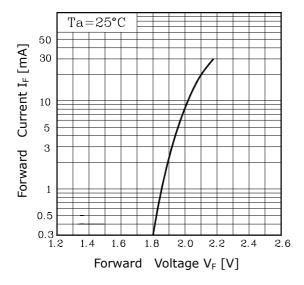


Fig.  $3 I_F - Ta$ 

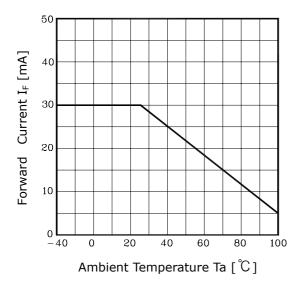
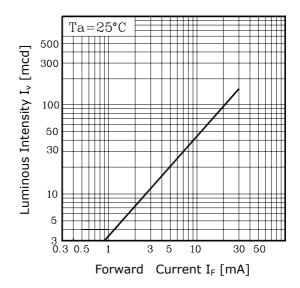
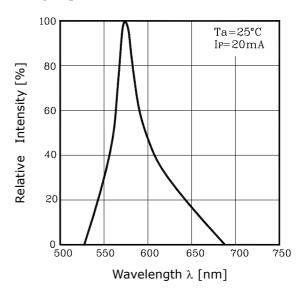


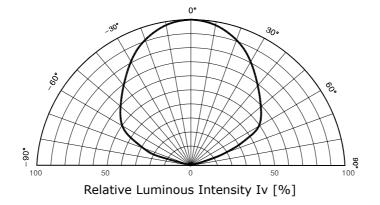
Fig. 5 Radiation Diagram

## Fig. 2 $I_V$ - $I_F$



**Fig.4 Spectrum Distribution** 





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