





#### **Features**

- Colorless transparency lens type
- Compact type
- Radiation size 2.9mm(L)×1.6mm(W) surface mount type
- Ultra luminosity

## **Applications**

- LCD backlighting
- Keypad backlighting
- Symbol backlighting
- Front panel indicator lamp

### **Outline Dimensions**

unit: mm 0.40 Typ-3  $2.40\pm0.$ 2 1  $-2.90\pm0.2$  $R0.7 \pm 0.2$  $-0.75\pm0.1$  $2.90\pm0.1$ **PIN Connections** 1.Cahtode 2.NC 3.Anode

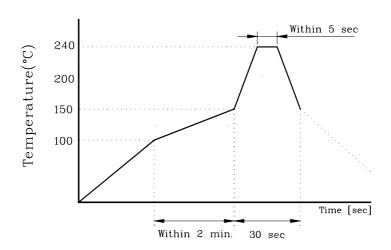
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Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit	
Power Dissipation	$P_D$	60	mW	
Forward Current	${ m I}_{\sf F}$	25	mA	
*1Peak Forward Current	${ m I}_{\sf FP}$	50	mA	
Reverse Voltage	$V_R$	4	V	
Operating Temperature	$T_{opr}$	-20~80	°C	
Storage Temperature	T <sub>stg</sub>	-25~85	°C	
*2Soldering Temperature (Reflow soldering)	T <sub>sol</sub>	240°C for 3 seconds		

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

2-1) Preheating 100  $^\circ$  to 150  $^\circ$  within 2 minutes Soldering 240  $^\circ$  within 5 seconds Gradual cooling (Avoid quenching)



### **Electrical Characteristics**

Characteristic	Symbol	<b>Test Condition</b>	Min.	Тур.	Max.	Unit
Forward Voltage	$V_{F}$	I <sub>F</sub> = 20mA	-	1.8	2.3	V
Luminous Intensity	$I_{V}$	I <sub>F</sub> = 20mA	-	67	-	mcd
Peak Wavelength	$\lambda_{P}$	I <sub>F</sub> = 20mA	-	660	-	nm
Spectrum Bandwidth	$\Delta_{\lambda}$	I <sub>F</sub> = 20mA	-	20	-	nm
Reverse Current	$I_{R}$	V <sub>R</sub> =4V	-	-	10	uA
* <sup>3</sup> Half Angle	θ1/2	$I_F$ = 20mA	-	±60	-	deg

<sup>\*3.</sup>  $\theta$ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

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<sup>\*2.</sup> Recommended soldering Temperature Profile

# **Characteristic Diagrams**

Fig. 1  $I_F$  -  $V_F$ 

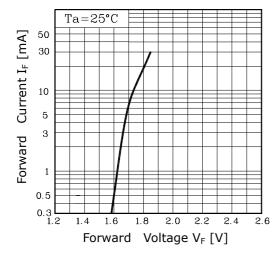


Fig.  $3 I_F - Ta$ 

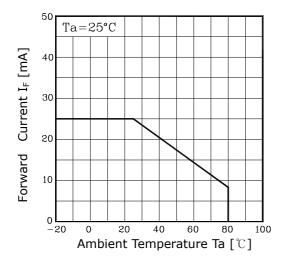


Fig. 2  $I_V$  -  $I_F$ 

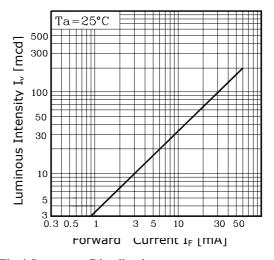


Fig.4 Spectrum Distribution

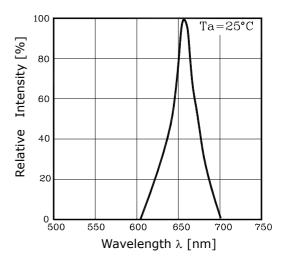
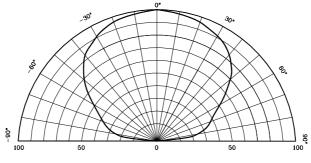


Fig. 5-1 Radiation Diagram



Relative Luminous Intensity Iv [%]

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