

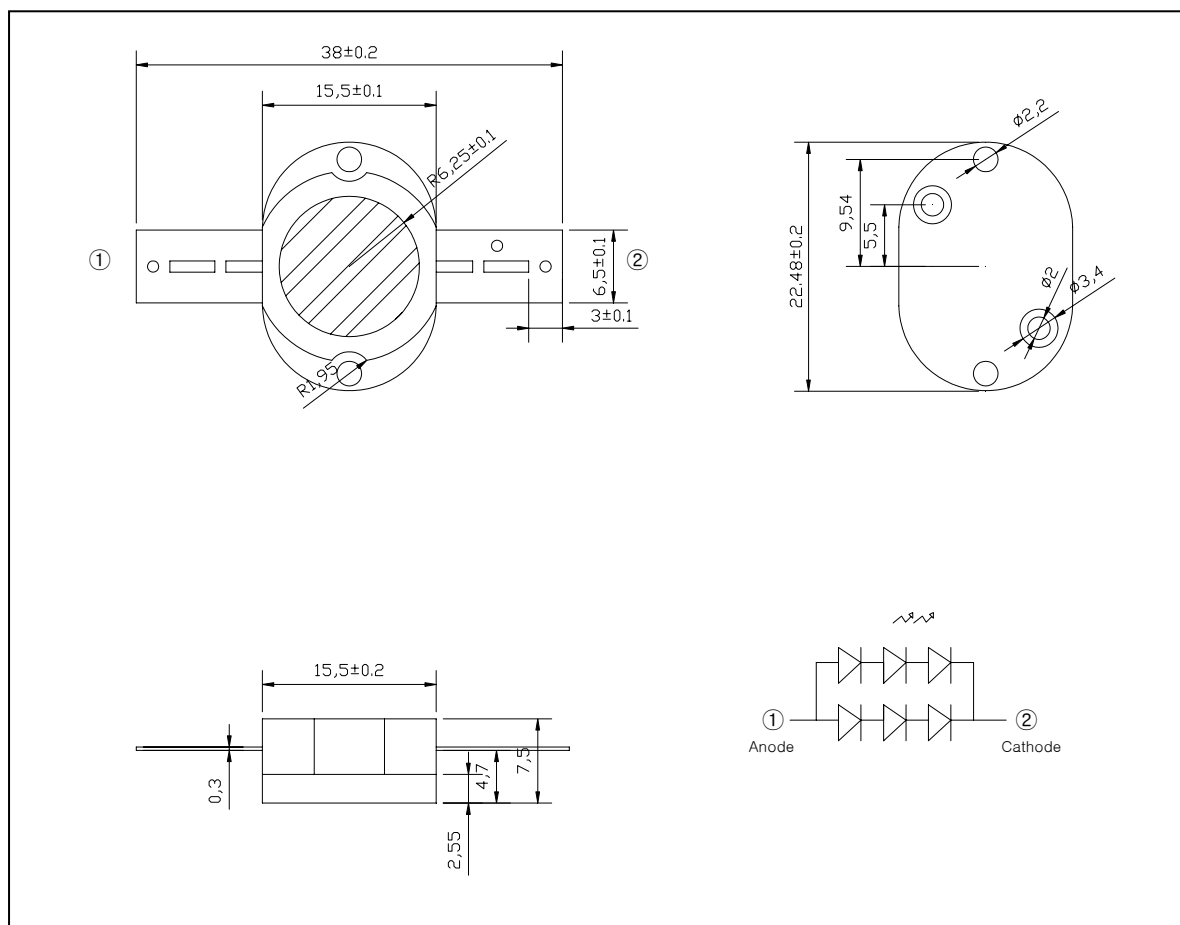
1. Features

- ◆ Small Footprint Surface Mount Package (22.48 L × 38 W × 7.5 H [mm])
- ◆ Typical Forward Voltage(V_F) : 9.6 V @ Forward Current(I_F)=700mA
- ◆ Operation Temperature from -40°C to $+85^{\circ}\text{C}$
- ◆ Soldering methods : IR reflow soldering
- ◆ Taping : 8 mm conductive black carrier tape & antistatic clear cover tape

2. Applications

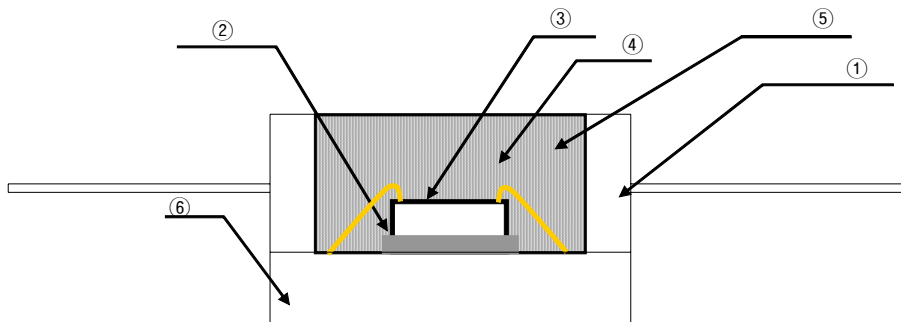
- ◆ Down Light

3. Outline Dimensions and Material Descriptions



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◆ Material Descriptions



No.	ITEM	Material
①	Frame Resine	Polymer
②	Paste	Clear Epoxy
③	Blue LED Chip	InGaN/Al ₂ O ₃
④	Wire	Au
⑤	Encapsulant	Phosphor Epoxy
⑥	Electrode	Ag Plated Cu

4. Absolute Maximum

Item	Symbol	Min.	Max.	Unit	Conditions
Forward Current	I_F	-	700	mA	
Peak Forward Current* ¹	I_{FP}	-	1000	mA	per die
Power Dissipation	P_D	-	5000	mW	
Reverse Voltage	V_R	-	6.6	V	per die
Operating Temperature	T_{OP}	-40	85	°C	
Storage Temperature	T_s	-40	100	°C	
Soldering Temperature* ²	T_{sol}	-	260	°C	

*1. IFP was measured at $T_w \leq 1$ msec of pulse width and $D \leq 1/10$ of duty ratio.

*2. Soldering time : 5 Sec

5. Electrical / Optical Characteristics

(Ta=25°C)

Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage* ³	V_F	-	9.6	-	V	$I_F=700$ mA
Reverse current	I_R	-	-	10	μA	$V_R=5$ V
Luminous intensity* ^{1,3}	I_v	350.0	-	500.0	lm	$I_F=700$ mA
Half angle* ²	$2\theta_{1/2}$	-	120	-	deg	$I_F=700$ mA

*1. The luminous intensity I_v was measured at the peak of the spatial pattern which

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may not be aligned with the mechanical axis of the LED package.

*2. $2\theta_{1/2}$ is the off-axis where the luminous intensity is 1/2 of the peak intensity.

*3. Measuring Tolerance

- V_F : ± 0.1 V, I_V : $\pm 10\%$, X, Y : ± 0.01

6. Ranks

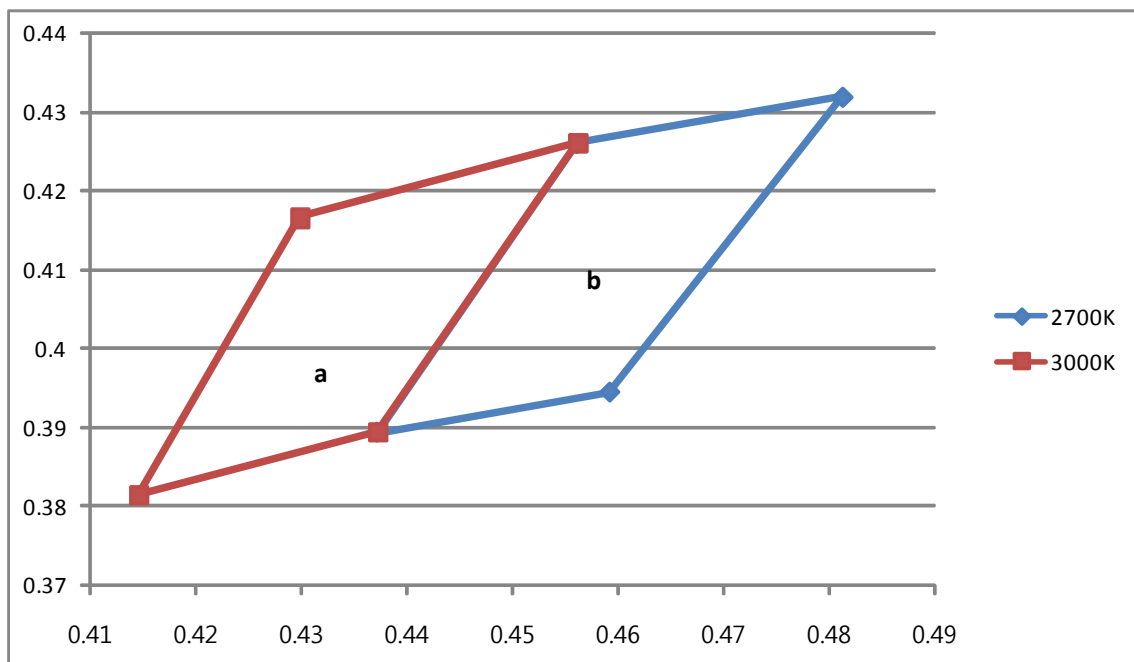
◆ I_V , V_F , Color Rank @ $I_F = 700$ mA

Luminous Intensity Range[mcd]		
Forward Voltage [V]	Luminous Intensity [lm]	Chromaticity
A : 9.2 ~ 9.4	1 : 350 ~ 400	a
B : 9.4 ~ 9.6	2 : 400 ~ 500	b
C : 9.6 ~ 9.8		

◆ Color Coordinate Rank

a		b	
x	y	x	y
0.4813	0.4319	0.4562	0.4260
0.4562	0.4260	0.4299	0.4165
0.4373	0.3893	0.4147	0.3814
0.4813	0.4319	0.4373	0.3893

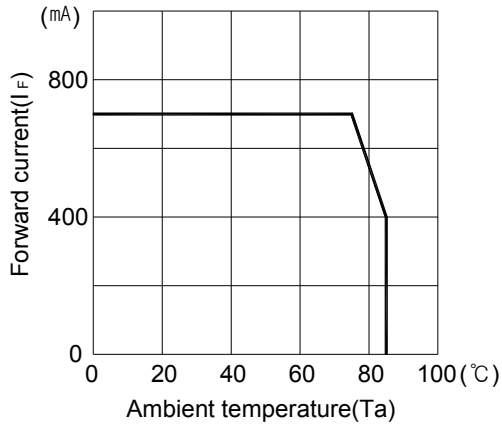
◆ The CIE(x, y) Chromaticity Diagram



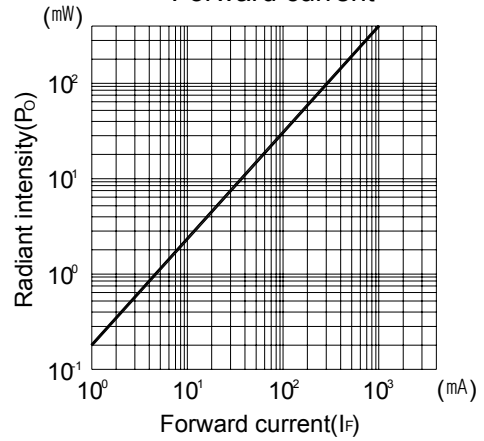
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7. Characteristic Graphs

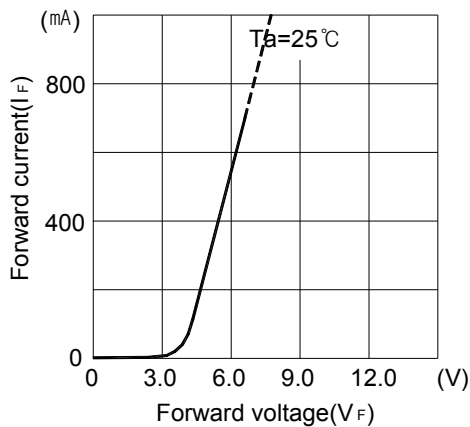
Forward current Vs. Ambient temperature



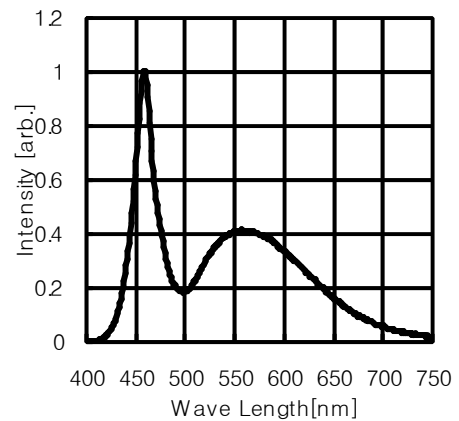
Relative intensity Vs. Forward current



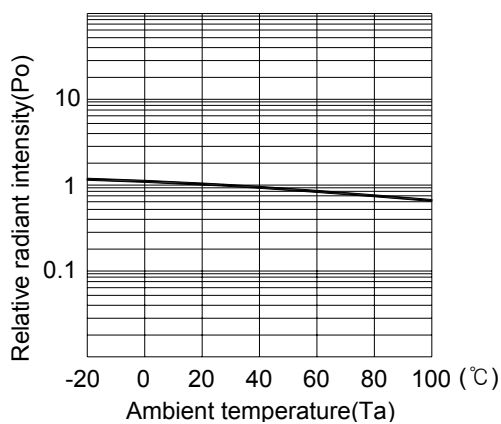
Forward current Vs. Forward voltage



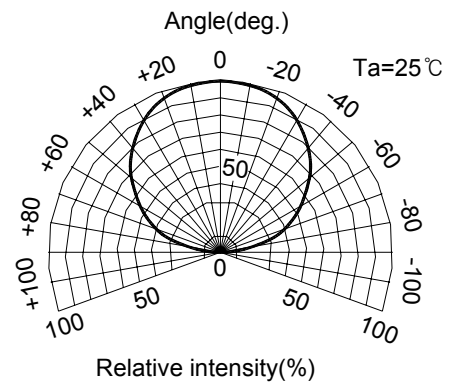
Relative intensity Vs. Wavelength



Relative radiant intensity Vs. Ambient temperature



Radiant Pattern



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