KP1506W

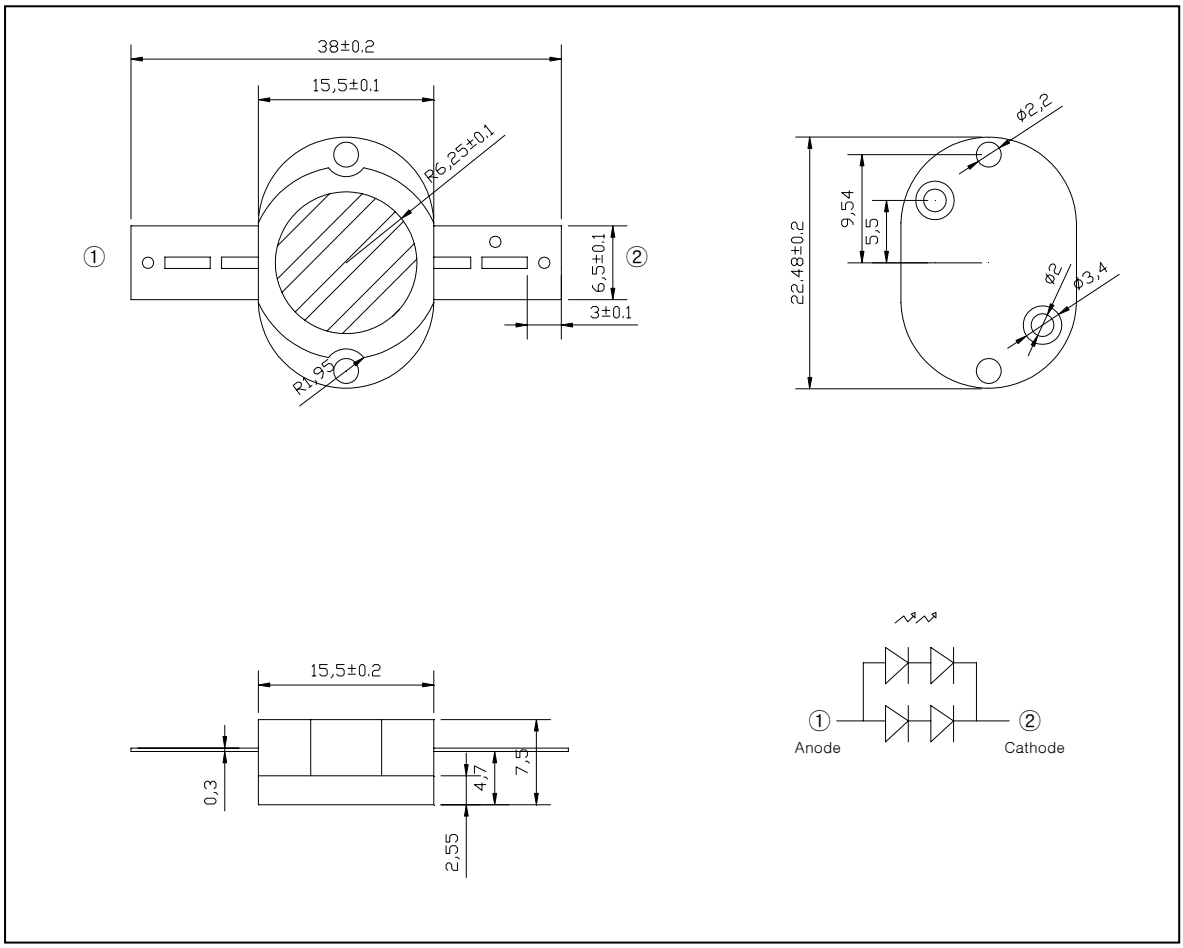
1. Features

- 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℃ to +85℃
- Soldering methods : IR reflow soldering
- Taping : 8 ㎜ conductive black carrier tape & antistatic clear cover tape

2. Applications

- Down Light

3. Outline Dimensions and Material Descriptions



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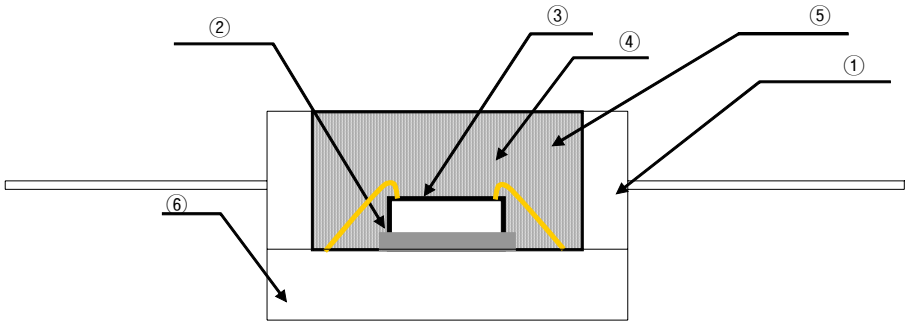
◆ **Material Descriptions**



No.	ITEM	Material
①	Frame Resine	Polymer
②	Paste	Clear Epoxy
③	Blue LED Chip	$InGaN/Al_2O_3$
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	℃	
Storage Temperature	Ts	-40	100	℃	
Soldering Temperature*2	T_{sol}	-	260	℃	

*1. IFP was measured at Tw ≤ 1 msec of pulse width and D ≤ 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=700mA
Reverse current	I_R	-	-	10	μA	V_R=5V
Luminous intensity*1,3	I_V	500.0	-	700.0	lm	I_F=700mA
Half angle*2	$2\Theta_{1/2}$	-	120	-	deg	I_F=700mA

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

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 : ± 10%, X,Y : ± 0.01

6. Ranks

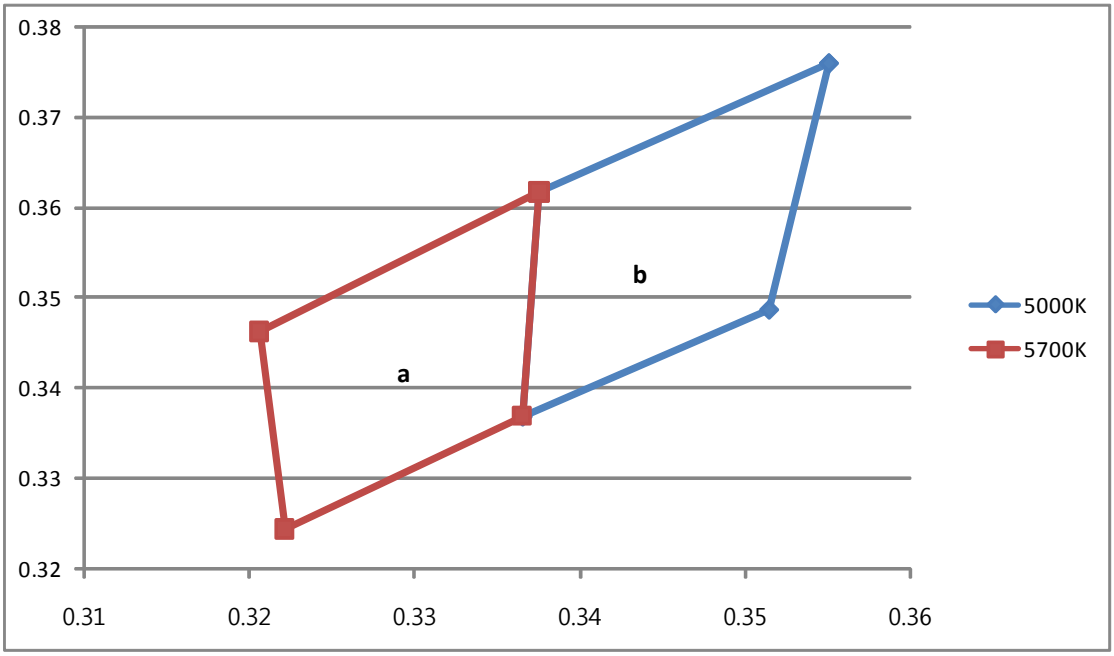
◆ I_V, V_F, Color Rank @ I_F = 700 mA

Luminous Intensity Range[mcd]		
Forward Voltage [V]	**Luminuous Intensity [lm]**	**Chromaticity**
A : 9.2 ~ 9.4	1 : 500 ~ 600	a
B : 9.4 ~ 9.6	2 : 600 ~ 700	b
C : 9.6 ~ 9.8		

◆ Color Coordinate Rank

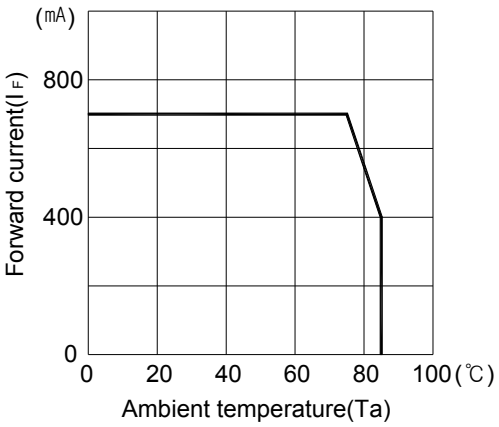
a		b	
x	y	x	y
0.3551	0.3760	0.3376	0.3616
0.3376	0.3616	0.3207	0.3462
0.3366	0.3369	0.3222	0.3243
0.3515	0.3487	0.3366	0.3369

◆ The CIE(x, y) Chromaticity Diagram

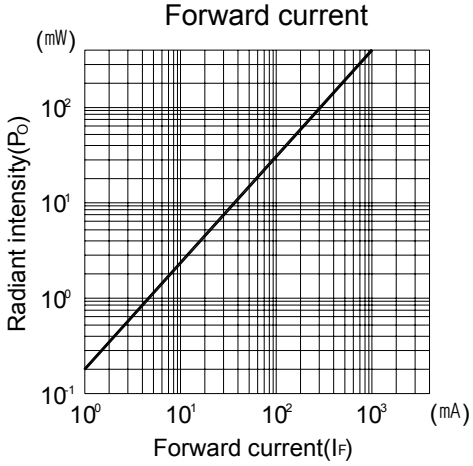


7. Characteristic Graphs

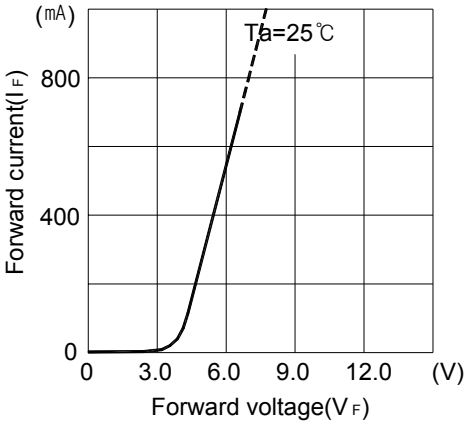
Forward current Vs.
Ambient temperature



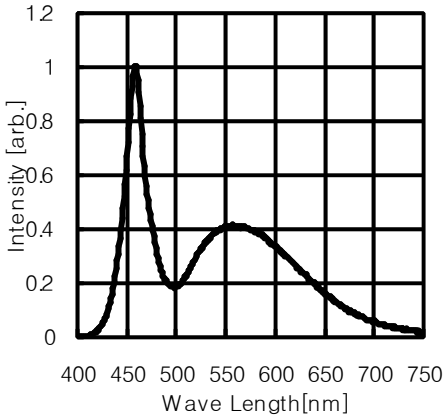
Relative intensity Vs.
Forward current



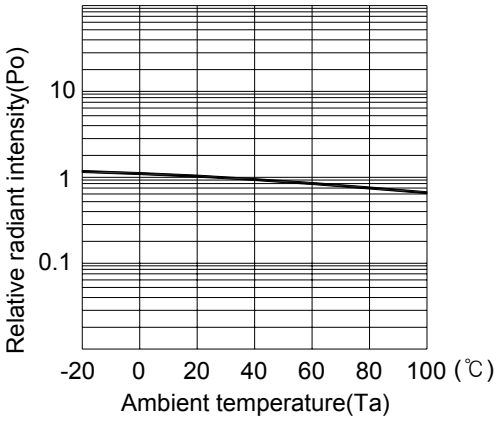
Forward current Vs.
Forward voltage



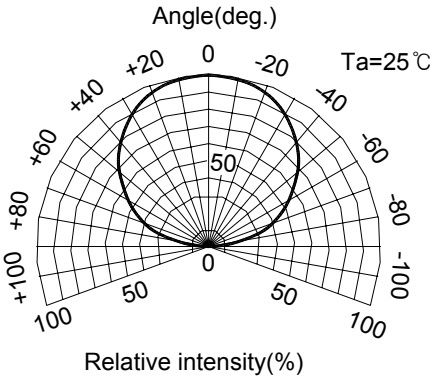
Relative intensity Vs.
Wavelength



Relative radiant intensity Vs.
Ambient temperature



Radiant Pattern



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