KP3014W00A2B

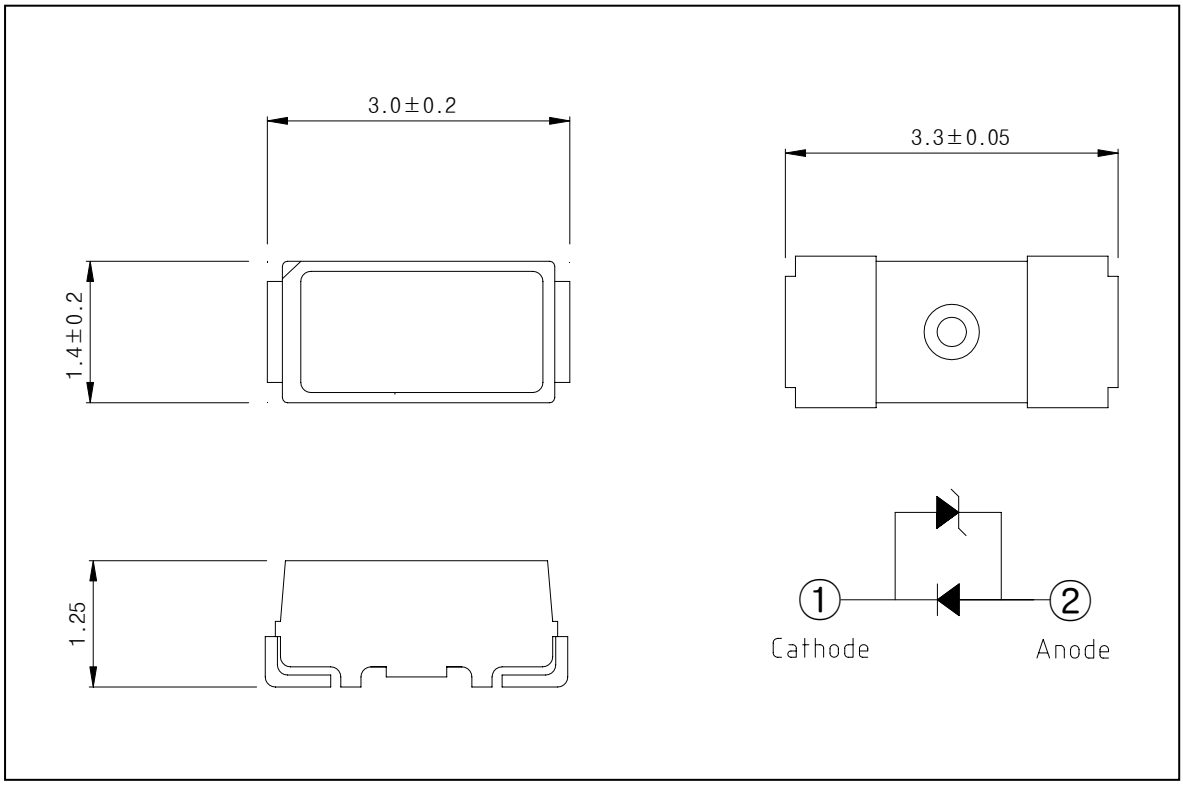
1. Features

- Small Footprint Surface Mount Package (3.0 L × 1.4 W × 1.2 H [mm^3])
- Typical Forward Voltage(V_F) : 3.3 V @ Forward Current(I_F)=20mA
- Operation Temperature from -40℃ to +85℃
- Soldering methods : IR reflow soldering
- Taping : 8 ㎜ conductive black carrier tape & antistatic clear cover tape

2. Applications

- Indicatiors, Illuminations

3. Outline Dimensions and Material Descriptions



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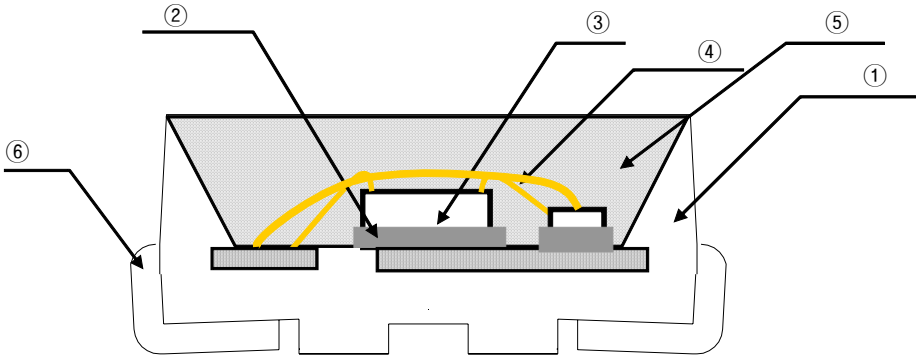
◆ **Material Descriptions**



No.	ITEM	Material
①	Frame Resine	Polymer
②	Paste	Clear, Ag 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	-	20	mA	
Peak Forward Current*1	I_{FP}	-	40	mA	per die
Power Dissipation	P_D	-	80	mW	
Reverse Voltage	V_R	-	5	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	3.0	-	3.4	V	I_F=20mA
Reverse current	V_R	-	-	5	V	I_R=10uA
Luminous intensity*1,3	I_V	1500	-	2500	mcd	I_F=20mA
Half angle*2	$2\Theta_{1/2}$	-	120	-	deg	I_F=20mA

*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

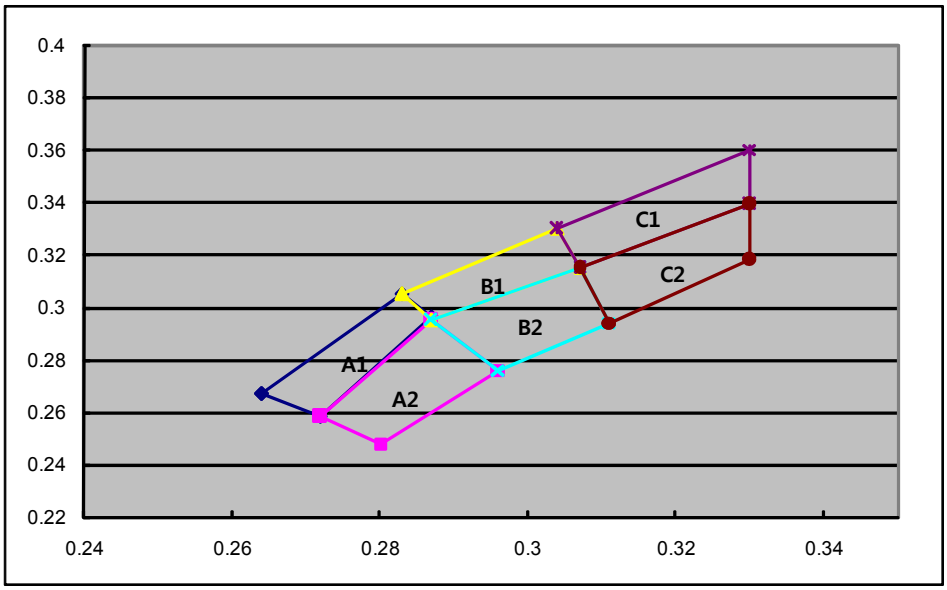
◆ **V_F, I_V, Color Rank @ I_F = 20 mA**

Luminous Intensity Range[mcd]		
Forward Voltage [V]	**Luminuous Intensity [mcd]**	**Chromaticity**
A : 3.0 ~ 3.2	1 : 1500 ~ 2000	A1
B : 3.2 ~ 3.4	2 : 2000 ~ 2500	A2
		B1
		B2
		C1
		C2

◆ **Color Coordinate Rank**

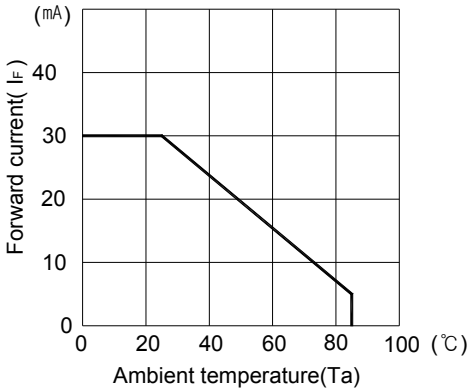
A1		A2		B1		B2		C1		C2	
x	y	x	y	x	y	x	y	x	y	x	y
0.264	0.267	0.272	0.258	0.283	0.305	0.296	0.276	0.307	0.315	0.311	0.294
0.272	0.258	0.280	0.248	0.287	0.295	0.311	0.294	0.330	0.339	0.330	0.318
0.287	0.296	0.296	0.276	0.307	0.315	0.307	0.315	0.330	0.360	0.330	0.339
0.283	0.305	0.287	0.295	0.304	0.330	0.287	0.295	0.304	0.330	0.307	0.315

◆ **The CIE(x, y) Chromaticity Diagram**

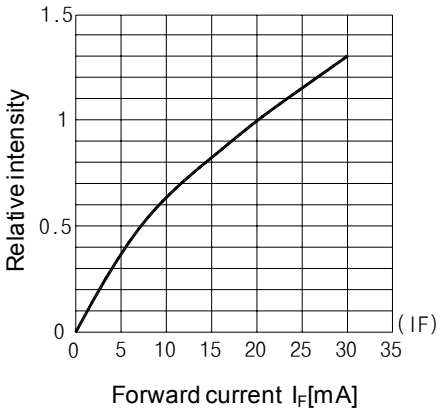


7. Characteristic Graphs

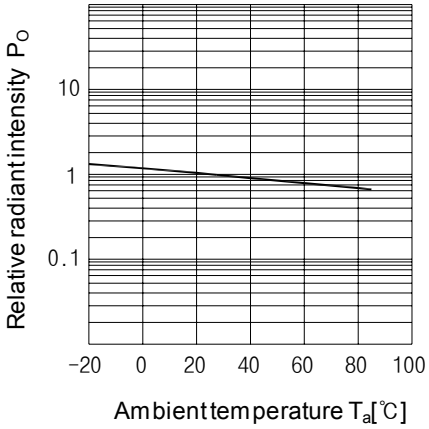
Forward current vs. Ambient temperature



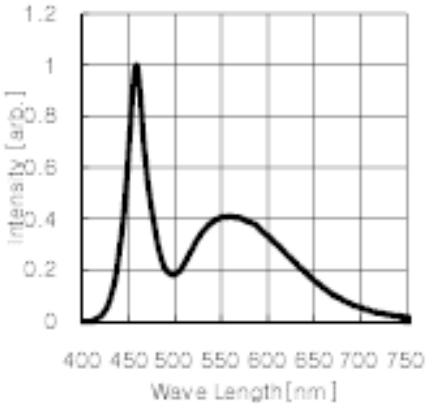
Radiant Intensity vs. Forward current



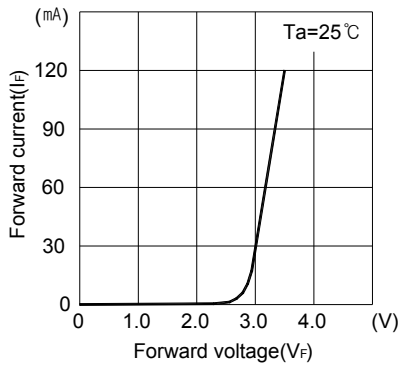
Relative radiant intensity vs. Ambient temperature



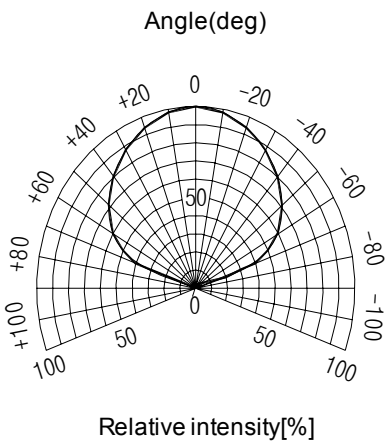
Relative intensity vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern



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