

1. Descriptions

The KP3528BSKA2I-VX is a Skyblue LED consisting of small and thin plastic leaded chip carrier (PLCC) 2-pin package, InGaN blue chip and phosphor.

2. Features

- ◆ Small Footprint Surface Mount Package (3.5 L × 2.8 W × 1.9 H [mm³])
- ◆ Typical Forward Voltage(V_F) : 3.0 V @ Forward Current(I_F)=10mA
- ◆ Operation Temperature from -40°C to +100°C
- ◆ Soldering methods : IR reflow soldering
- ◆ Taping : 8mm conductive black carrier tape & antistatic clear cover tape

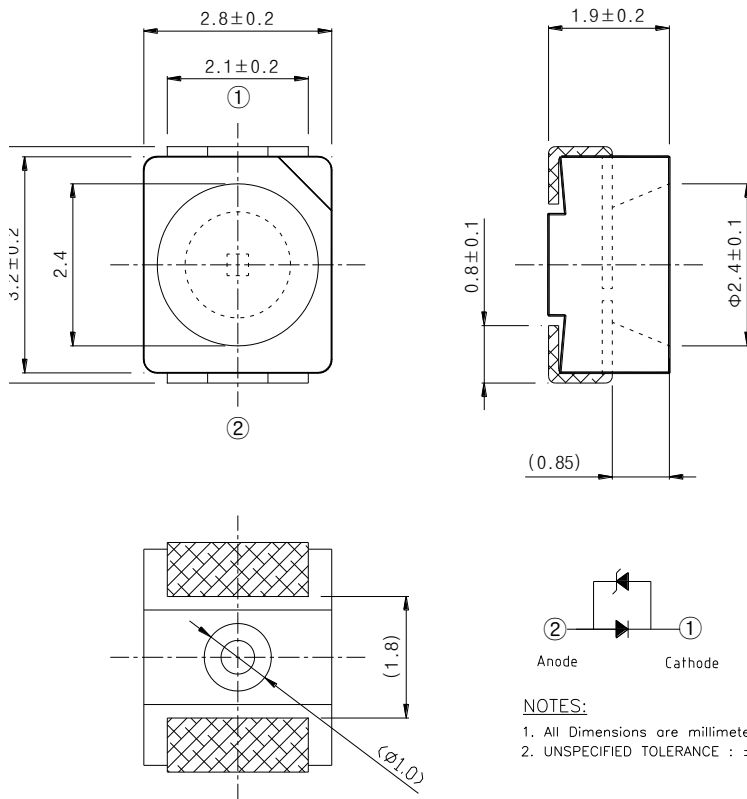
3. Applications

- ◆ Interior lighting
- ◆ General lighting
- ◆ Indoor and out door displays
- ◆ Architectural / Decorative lighting

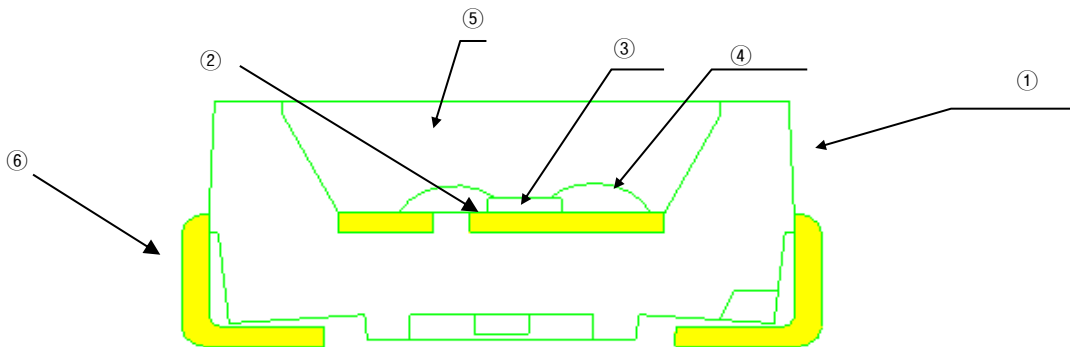
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When using this product, would you please refer to the latest specifications.

4. Outline Dimensions and Material Descriptions

◆ Outline Dimensions



◆ Material Descriptions



No.	Item	Material
①	Package	PPA
②	Die Adhesive	Clear Silicone
③	LED Chip	InGaN
④	Wire	Au
⑤	Encapsulant	Clear Silicone + Phosphor
⑥	Lead	Fe Alloy

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5. Absolute Maximums

Item	Symbol	Min.	Max.	Unit	Conditions
Forward Current	I_F	-	30	mA	
Peak Forward Current ^{*1}	I_{FP}	-	90	mA	
Power Dissipation	P_D	-	110	mW	
Reverse Voltage	V_R	-	5	V	
Operating Temperature	T_{OP}	-40	100	°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

6. Electro-Optical Characteristics ($T_A = 25^\circ\text{C}$)

Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage ^{*3}	V_F	2.7	3.0	3.7	V	$I_F=10\text{mA}$
Reverse voltage	V_R	0.5	-	1.6	V	$I_R=5\text{mA}$
Luminous intensity ^{*1,3}	I_V	240	300	360	mcd	$I_F=10\text{mA}$
Chromaticity coordiante ^{*3}	x	0.1615	-	0.1715	-	$I_F=10\text{mA}$
	y	0.0875	-	0.1075	-	$I_F=10\text{mA}$
Half angle ^{*2}	$2\theta_{1/2}$	-	120	-	deg	$I_F=10\text{mA}$

*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 : $\pm 10\%$, Ra : ± 3 , X,Y : ± 0.01

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7. Ranks

◆ I_V , V_F , Color Rank Table^{*1}

V _F , I _V , Color Rank @ IF = 10 mA		
Forward Voltage [V]	Luminuous Intensity [mcd]	Chromaticity
1 : 2.7 ~ 3.1	P : 240 ~ 300	V1
2 : 3.1 ~ 3.7	Q : 300 ~ 360	-
-	-	-
-	-	-

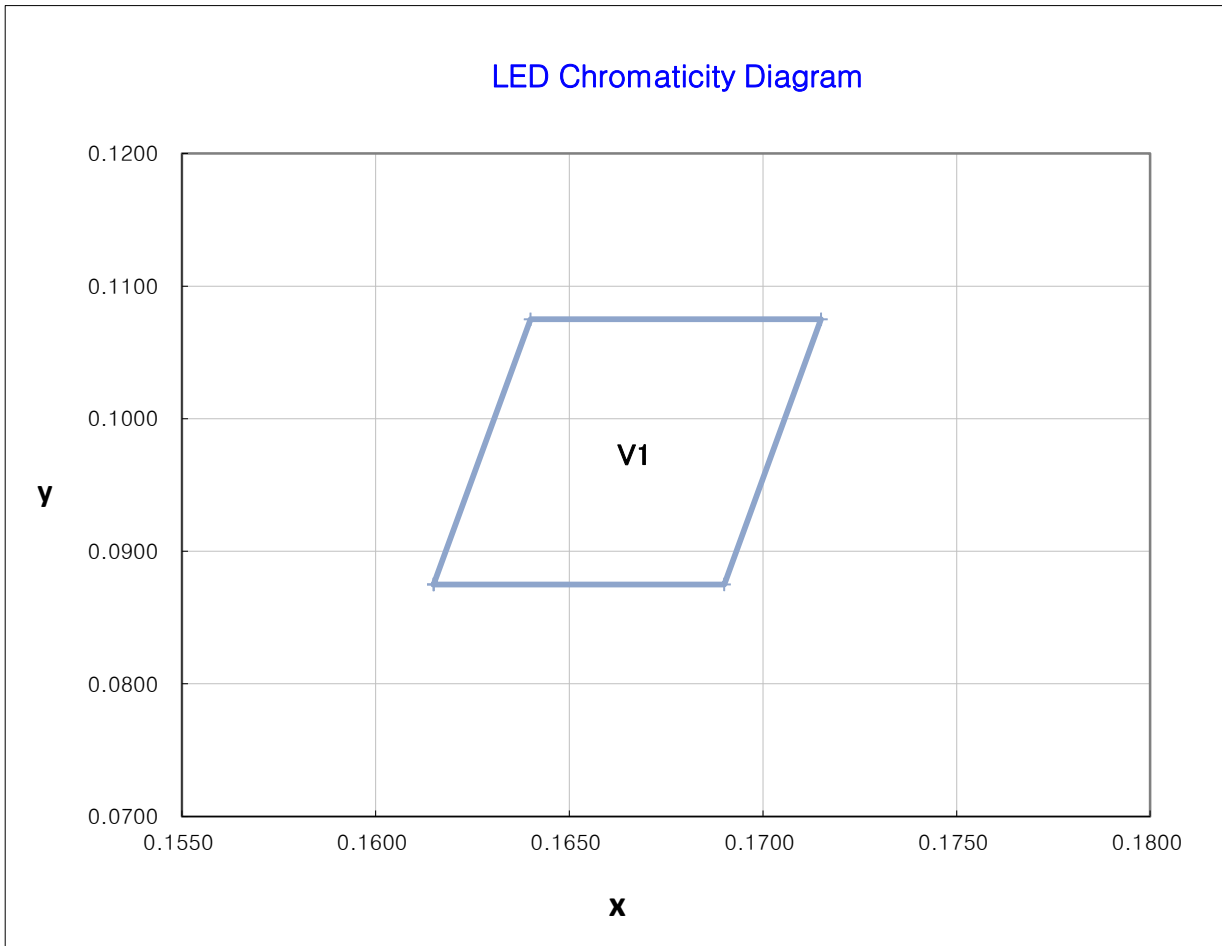
*1. KP3528BSKA2I-VX marked as 1QV1(V_F, I_V, Color Rank) has the I_V range 300~360mcd, V_F rank 2.7~3.1V and Color range V1 area.

◆ Color Coordinate Rank

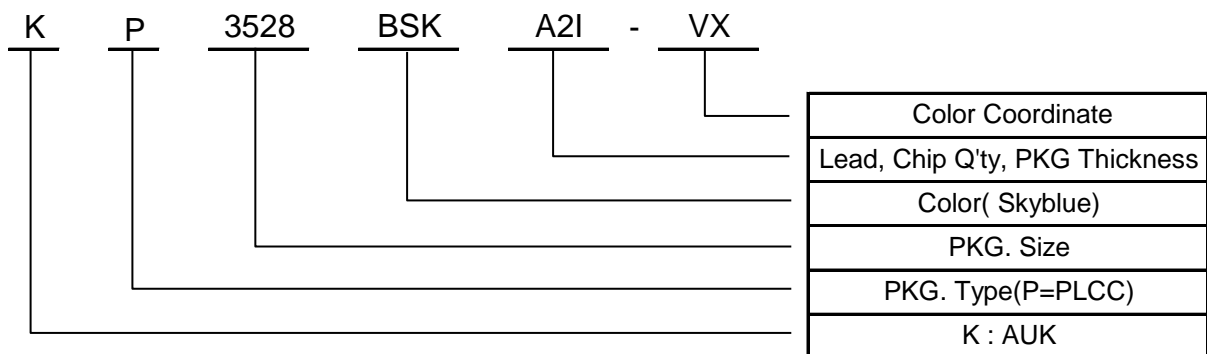
V1							
x	y						
0.1615	0.0875						
0.1640	0.1075						
0.1715	0.1075						
0.1690	0.0875						

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◆ The CIE(x, y) Chromaticity Diagram



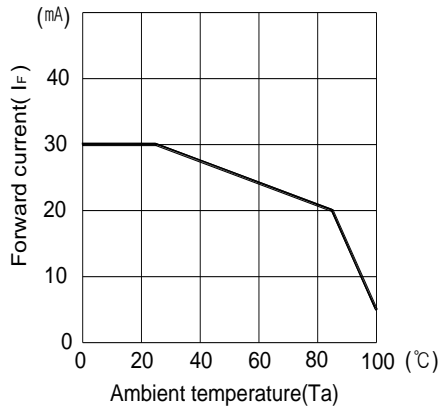
8. Part Numbering



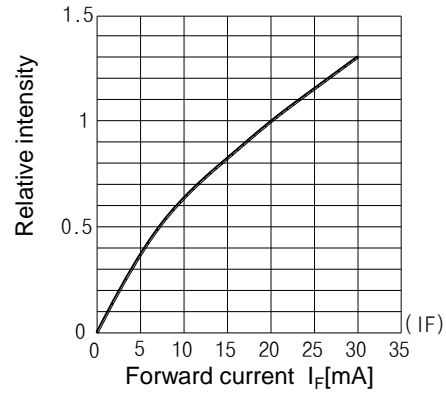
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9. Characteristic Graphs

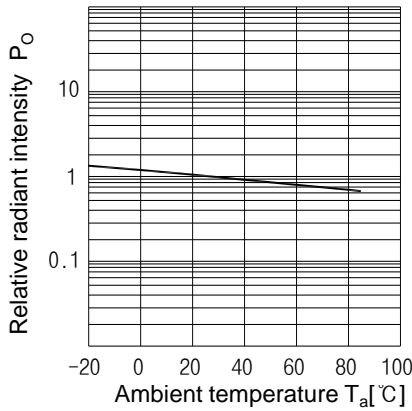
Forward current vs. Ambient temperature



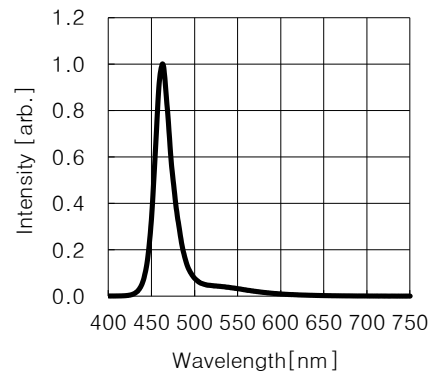
Luminous Intensity vs. Forward current



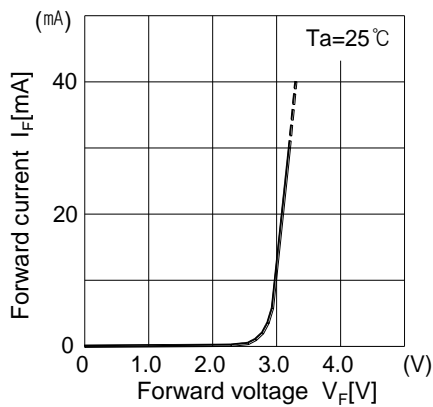
Relative luminous intensity vs. Ambient temperature



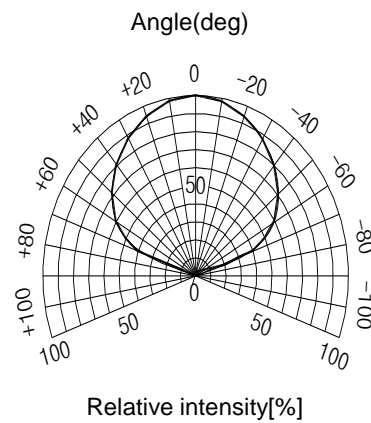
Relative intensity vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern



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