1. Descriptions

The KP3528F00C8I is a Red, Green, Blue Multi Color LED consisting of small and thin plastic leaded chip carrier (PLCC) 4-pin package.

2. Features

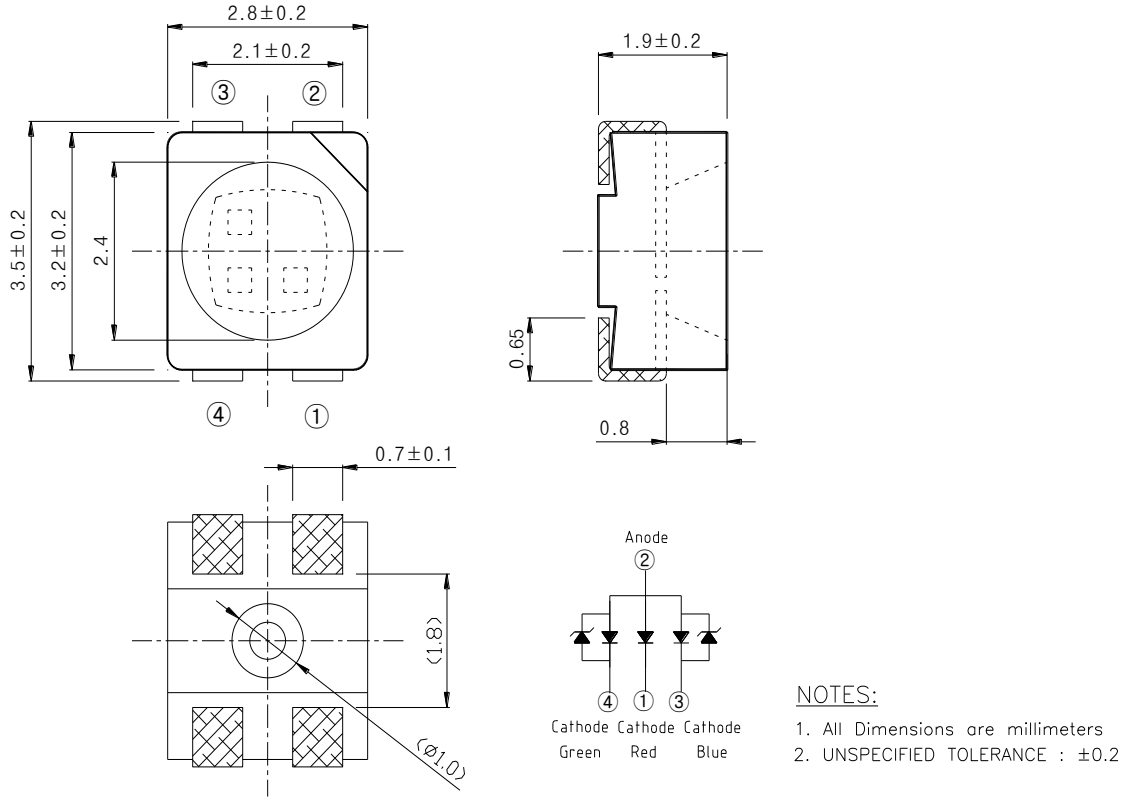
- Small Footprint Surface Mount Package (3.5 L × 2.8 W × 1.9 H [mm^3])
- 4 Pin R, G, B separate type LED
- Operation Temperature from -30℃ to +85℃
- Soldering methods : IR reflow soldering
- Taping : 8㎜ conductive black carrier tape & antistatic clear cover tape

3. Applications

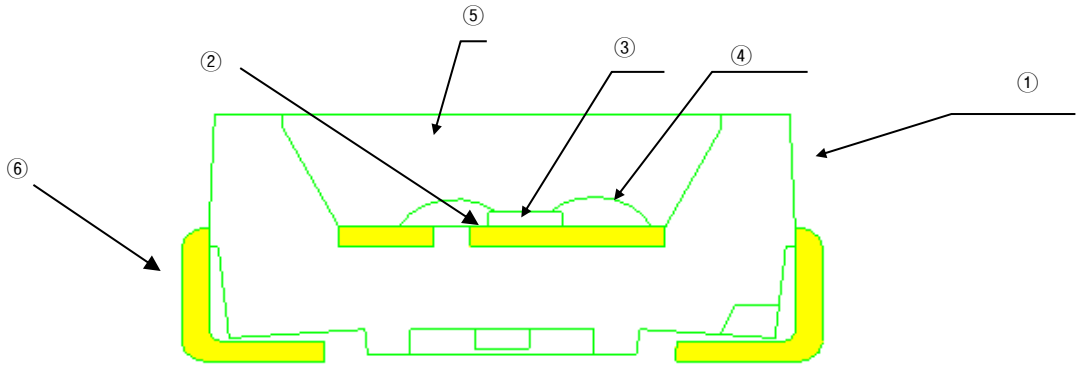
- Interior lighting
- General lighting
- Indoor and out door displays
- Architectural / Decorative lighting

4. Outline Dimensions and Material Descriptions

◆ Outline Dimensions



◆ Material Descriptions



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

5. Absolute Maximums

Item	Symbol	Value			Unit	Remarks
		Red	Green	Blue		
Forward Current	I_F	30	30	30	mA	
Peak Forward Current*1	I_{FP}	100	100	100	mA	
Power Dissipation	P_D	75	108	108	mW	
Reverse Voltage	V_R	5			V	
Operating Temperature	T_{OP}	-30 ~ +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

6. Electro-Optical Characteristics (T_A = 25℃)

Item		Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage*3	R	V_F	1.7	2.0	2.5	V	I_F=20mA
	G		2.7	3	3.6		
	B		2.7	3	3.6		
Reverse current	R	I_R	-	-	5	uA	V_R=5V
	G		-	-	5		
	B		-	-	5		
Luminous intensity*1,3	R,G,B	I_V	700	1000	1500	mcd	Red_I_F=25mA, Green_IF=11mA, Blue_IF=7mA
Chromaticity coordiante*3	R,G,B	x	0.250	-	0.350	-	Red_IF=25mA, Green_IF=11mA, Blue_IF=7mA
		y	0.250	-	0.350	-	
Half angle*2	R,G,B	$2\Theta_{1/2}$	-	120	-	deg	I_F=20mA

*1. The luminous intensity IV 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

7. Ranks

◆ I_V, Color Rank Table[*1]

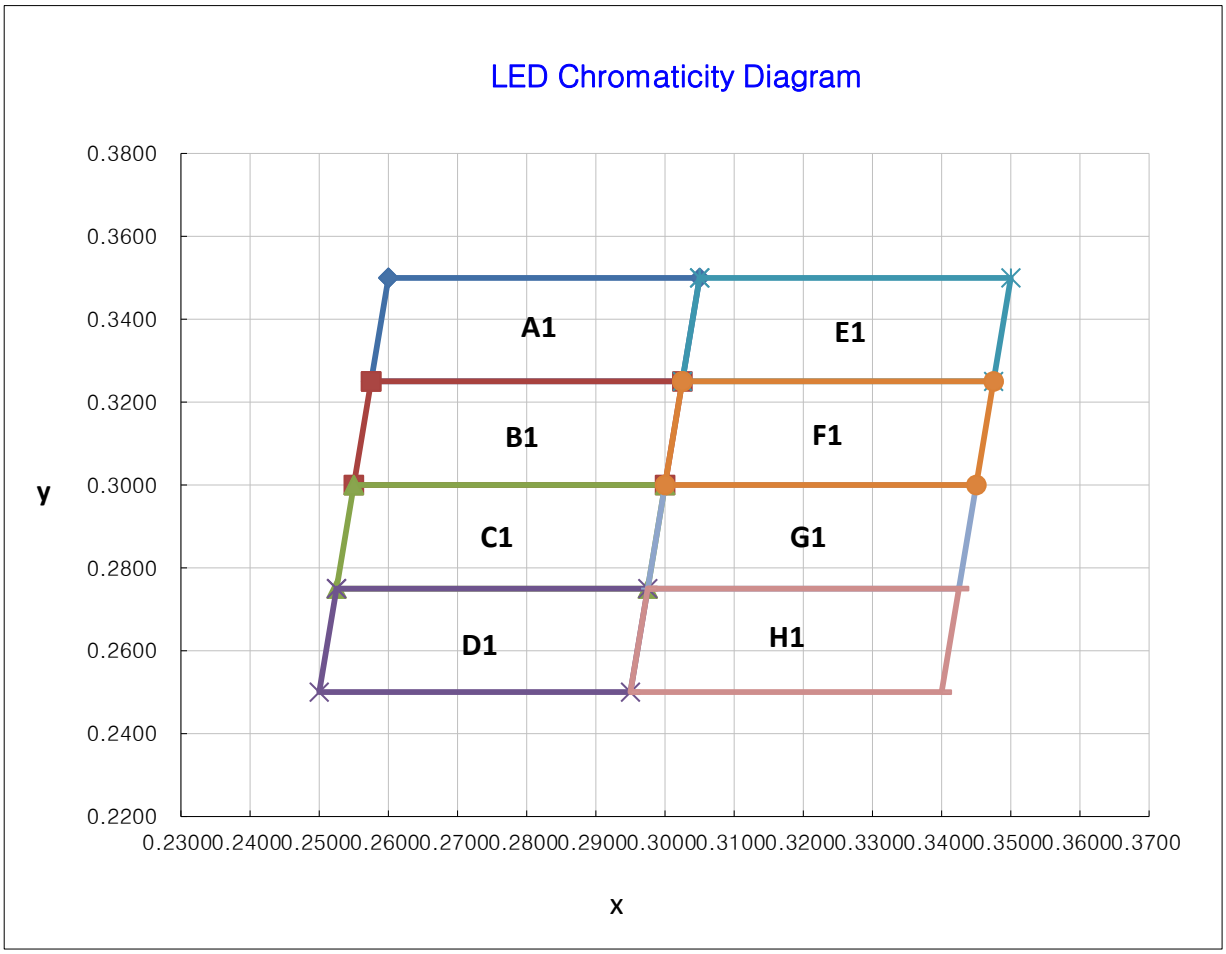
I_V, Color Rank @ Red_IF = 25 mA, Green_IF = 11 mA, Blue_IF = 7 mA			
Luminuous Intensity [mcd]	**Chromaticity**		**-**
T : 700 ~ 1000	**A1**	**E1**	**-**
U : 1000 ~ 1200	**B1**	**F1**	**-**
V : 1200 ~ 1500	**C1**	**G1**	**-**
-	**D1**	**H1**	**-**

*1. KP3528F00E6D marked as TA1(I_V, Color Rank) has the I_V range 0.7~1.0cd and Color range A1 area.

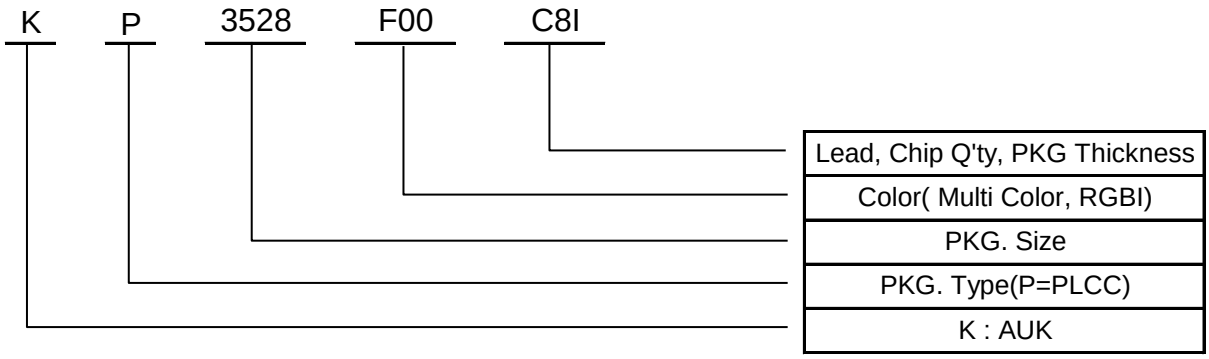
◆ Color Coordinate Rank

A1		**B1**		**C1**		**D1**	
x	y	x	y	x	y	x	y
0.2600	0.3500	0.2575	0.3250	0.2550	0.3000	0.2525	0.2750
0.2575	0.3250	0.2550	0.3000	0.2525	0.2750	0.2500	0.2500
0.3025	0.3250	0.3000	0.3000	0.2975	0.2750	0.2950	0.2500
0.3050	0.3500	0.3025	0.3250	0.3000	0.3000	0.2975	0.2750
E1		**F1**		**G1**		**H1**	
x	y	x	y	x	y	x	y
0.2525	0.2250	0.3025	0.3250	0.3000	0.3000	0.2975	0.2750
0.2650	0.2250	0.3000	0.3000	0.2975	0.2750	0.2950	0.2500
0.2800	0.2550	0.3450	0.3000	0.3425	0.2750	0.3400	0.2500
0.2675	0.2550	0.3475	0.3250	0.3450	0.3000	0.3425	0.2750

◆ The CIE(x, y) Chromaticity Diagram

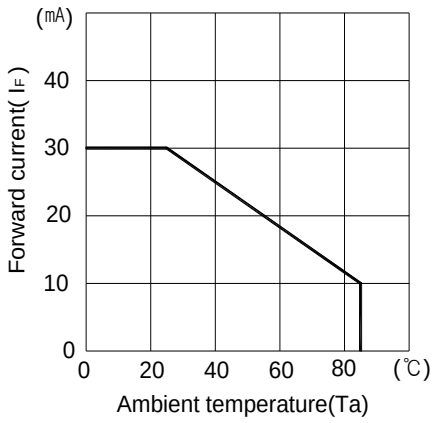


8. Part Numbering

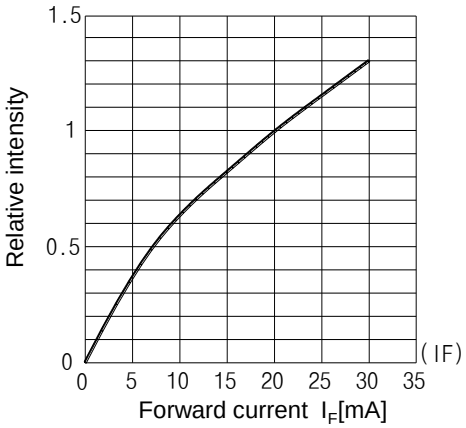


9. Characteristic Graphs

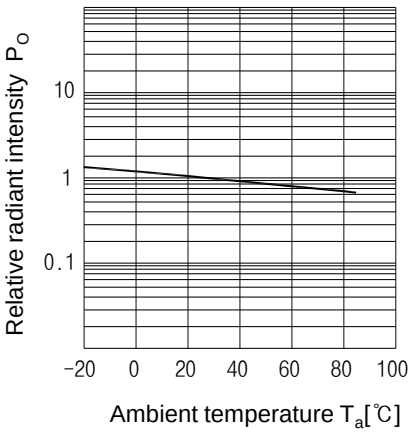
Forward current vs. Ambient temperature



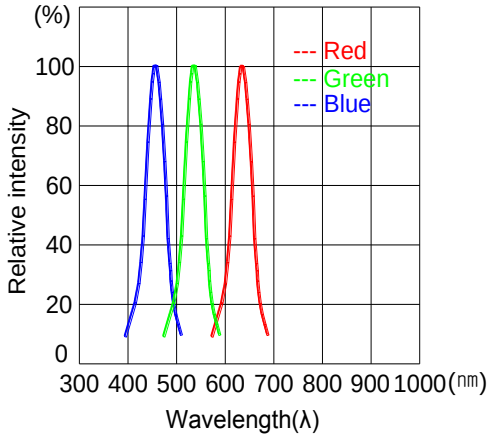
Luminous Intensity vs. Forward current



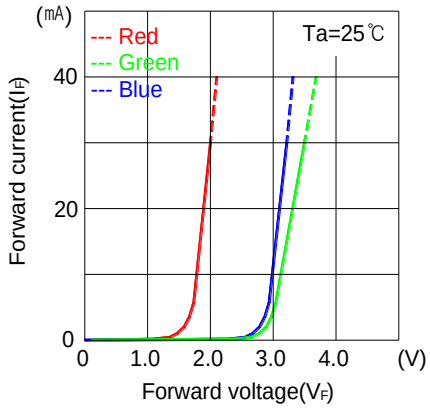
Relative luminous intensity vs. Ambient temperature



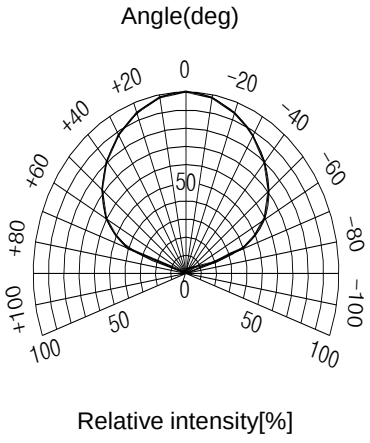
Relative intensity vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern



The contents of this data sheet are subject to change without advance notice for the purpose of improvement.
When using this product, would you please refer to the latest specifications.