

1. Product Outline

1) Feature

- . Lead Frame Type LED Package (5.2 * 6.0 * t 1.3mm)
- . Beam Angle ($\Delta\theta : 120^\circ$)
- . AlGaInP, GaN/Al₂O₃ Chip & Long Time Reliability

2) Applications

- . Indoor, Outdoor Display and etc.

2. Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating			Unit
		Red	Green	Blue	
Forward Current	I _F	30	30	30	mA
Pulse Forward Current	I _{FP}	100	100	100	mA
Reverse Voltage	V _r	5	-	-	V
Reverse Current	I _R	-	85	85	mA
Power Dissipation	PD	78	111	108	mW
Operating Temperature	T _{opr}	-30 ~ 85			°C
Storage Temperature Range	T _{stg}	-40 ~ 100			°C

- . I_{FP} Conditions : Duty 1/10 Pulse Width 10msec

3. Characteristics

Electrical properties

(Ta : 25°C)

Item	Symbol	Condition	Rank	Color	min.	Typ.	MAX.	Unit
Forward Voltage (*)	V _F	I _F = 20 mA	S	Red	1.8	2.1	2.6	V
				Green	2.9	3.2	3.7	
				Blue	2.9	3.2	3.6	
Reverse Current	I _R	V _R = 5V	-	R	-	-	50	μA
Reverse Voltage	V _r	I _R = 10mA	-	G, B	0.6	-	2.0	V

Chromaticity Coordinate

(Ta : 25°C)

Item	Condition	Rank	Color	x				y				
Chromaticity Coordinate (*)	IF=20mA	S	S1	Red	0.696	0.707	0.693	0.679	0.284	0.304	0.321	0.301
				Green	0.186	0.216	0.191	0.157	0.680	0.680	0.753	0.748
				Blue	0.138	0.150	0.145	0.130	0.039	0.057	0.075	0.054
			S2	Red	0.696	0.707	0.693	0.679	0.284	0.304	0.321	0.301
				Green	0.186	0.216	0.191	0.157	0.680	0.680	0.753	0.748
				Blue	0.130	0.145	0.139	0.121	0.054	0.075	0.097	0.075

Luminous Intensity

(Ta : 25°C)

Item	Symbol	Condition	Color						Unit
			Red		Green		Blue		
			Rank	Value	Rank	Value	Rank	Value	
Luminous Intensity (*)	I _v	I _F =20mA	A	470~570	A	1235~1510	A	280~340	mcd
			B	570~695	-	-	B	340~415	
			C	695~840	-	-	C	415~505	

* Tolerance : V_F:±0.1V, I_v:±5%, x,y:±0.01

* Luminous intensity measuring equipment : CAS140 B

Luminous Intensity Detail Ranks

Item	Symbol	Condition	Rank	Color			Unit	
				Red	Green	Blue		
Luminous Intensity (*)	I _v	I _F =20mA	P	AAA	470~570	1235~1510	280~340	mcd
				AAB	470~570	1235~1510	340~415	
				AAC	470~570	1235~1510	415~505	
				BAA	570~695	1235~1510	280~340	
				BAB	570~695	1235~1510	340~415	
				BAC	570~695	1235~1510	415~505	
				CAA	695~840	1235~1510	280~340	
				CAB	695~840	1235~1510	340~415	
				CAC	695~840	1235~1510	415~505	

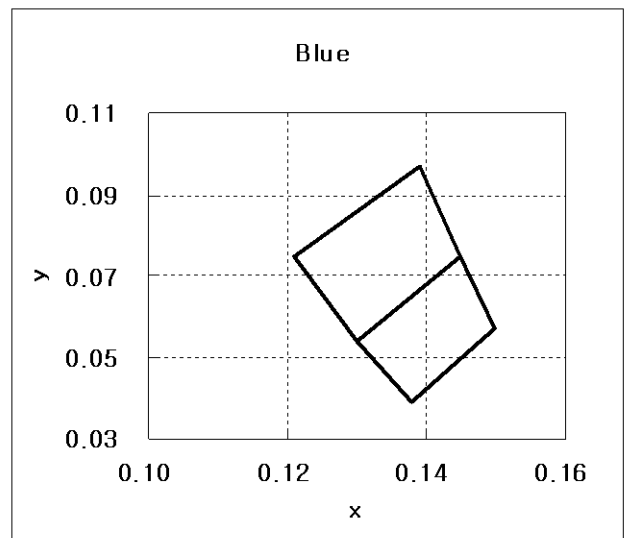
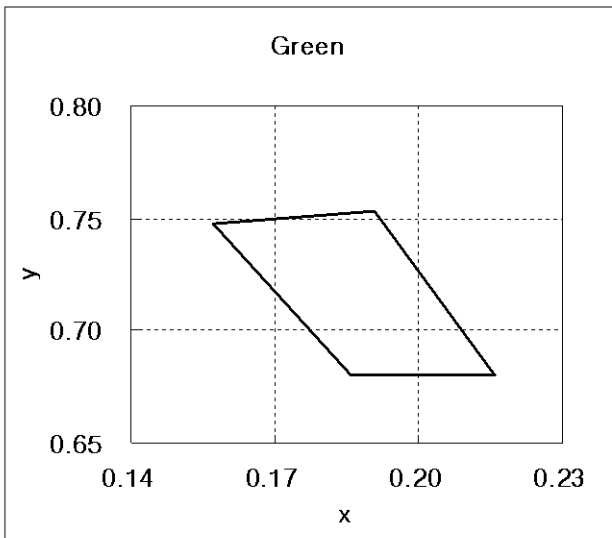
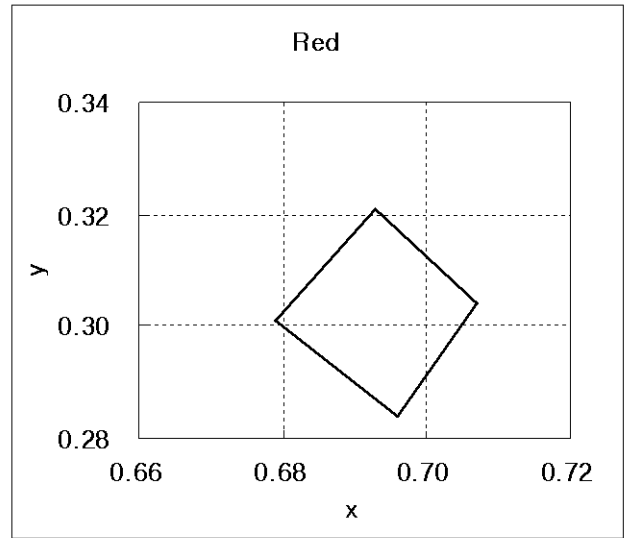
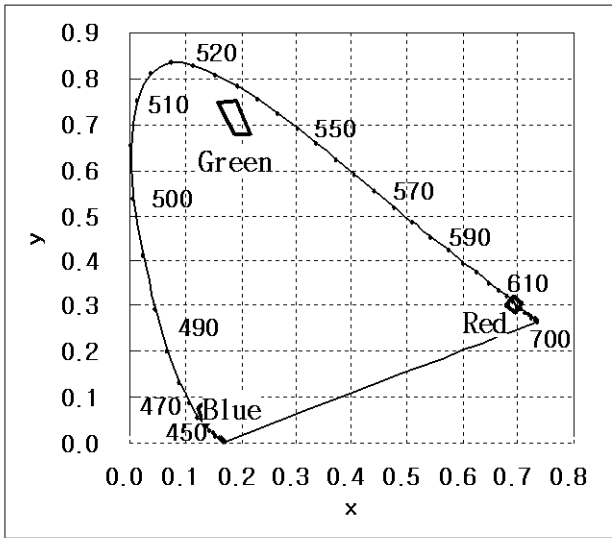
※ Approved Rank

V _F	CIE	I _v
S	S1, S2	AAA, AAB, AAC, BAA, BAB, BAC, CAA, CAB, CAC

* Each reel contains only one of the S1 or S2, a segment (1/2) of the CIE rank.

* Each reel contains only one of the AAA, AAB, AAC, BAA, BAB, BAC, CAA, CAB or CAC, a segment (1/9) of the I_v rank.

4. Chromaticity Diagram



5. Typical Characteristics Graph

* These graphs show typical values.

(Ta : 25°C)

