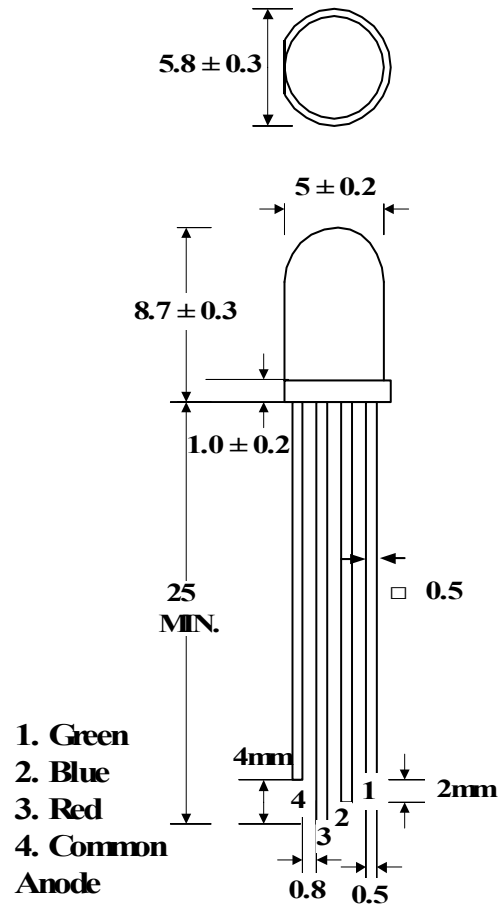
B5-4RGB-CBA

DESCRIPTION

- Super bright LED Lamp
- Full Color
- Round type
- T1-3/4 (5mm) diameter
- 4 pin
- Lens color: Water Clear
- With Flange
- Solder leads without stand-off

FEATURES

- Emitted color: Red / Green / Blue
- High Luminous intensity
- Technology: AlGaInP / InGaN / InGaN
- Peak wavelength λ_p = 630 / 517 / 472nm
- Viewing angle: 20°
- Common Anode



Notes:
1. All dimensions are in millimeter.
2. Lead spacing is measured where the lead emerge from the package.

SELECTION GUIDE

Chip Material	Chip Emitted	Lens Color	Viewing Angle
AlGaInP	Super Red	Water Clear	20°
InGaN	Super Green		
InGaN	Super Blue		

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ABSOLUTE MAXIMUM RATINGS (Ta=25□)

PARAMETER		SYMBOL	MAX. RATING	Unit
Power Dissipation	Red	P_D	120	mW
	Green		120	
	Blue		120	
Peak Forward Current (1/10 Duty Cycle@1KHz)	Red	I_{PF}	200	mA
	Green		100	
	Blue		100	
Continuous Forward Current	Red	I_{AF}	50	mA
	Green		30	
	Blue		30	
Reverse Voltage		V_R	5.0	V
Operating Temperature Range	Red	T_{OPR}	-40~+85	°C
	G & B		-20~+80	
Storage Temperature Range	Red	T_{STG}	-40~+85	°C
	G & B		-30~+100	
Solder temperature 1.6 mm from body for 3 seconds at 260 °C				

OPTICAL-ELECTRICAL CHARACTERISTICS

PARAMETER		SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Luminous Intensity	Red	IV	IF=20mA	840	1200		mcd
	Green			2590	3700		
	Blue			490	700		
Forward Voltage	Red	VF	IF=20mA		2.0	2.4	V
	Green				3.5	4.0	
	Blue				3.5	4.0	
Reverse Current	Red	IR	VR=5V			10	uA
	Green					10	
	Blue					10	
Viewing Angle		2θ1/2	IF=20mA		20		deg.
Peak Wavelength	Red	λP	IF=20mA		630		nm
	Green				517		
	Blue				472		
Dominant Wavelength	Red	λD	IF=20mA		625		nm
	Green				515		
	Blue				470		
Spectrum Radiation Bandwidth	Red	Δλ	IF=20mA		20		nm
	Green				30		
	Blue				35		

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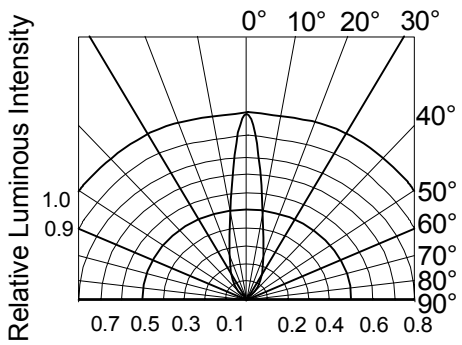
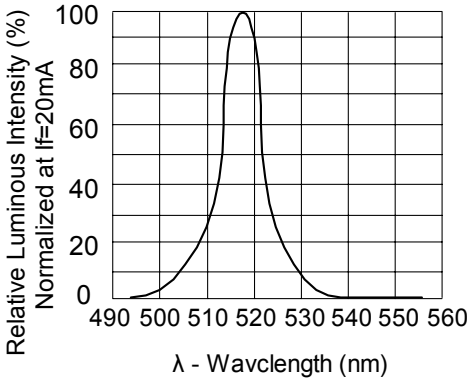
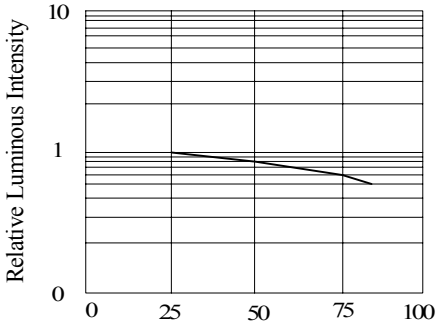
TYPICAL ELECTRICAL–OPTICAL CHARACTERISTIC CURVES



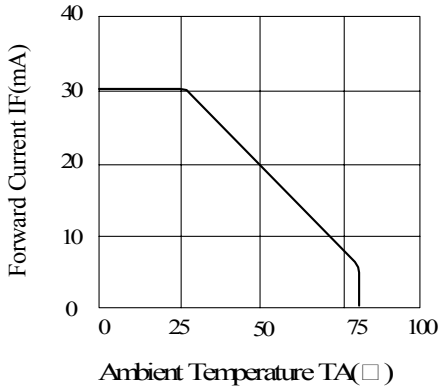
RADIATION DIAGRAM



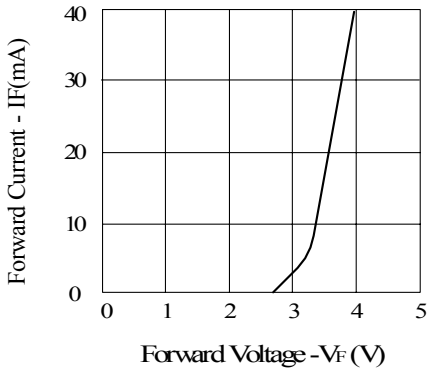
RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH



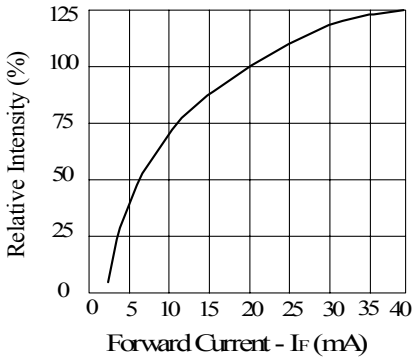
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE

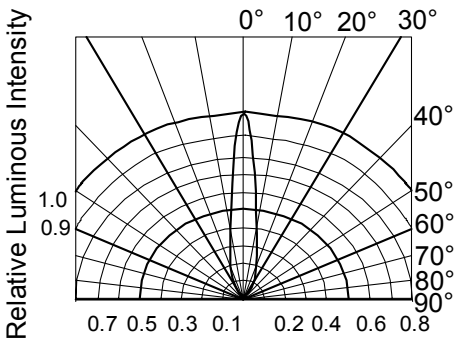


LUMINOUS INTENSITY Vs. FORWARD CURRENT

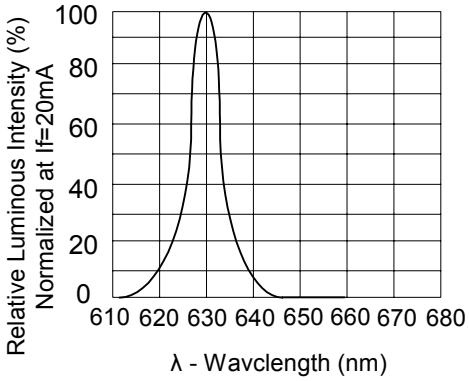
(Green)

B5-4RGB-CBA

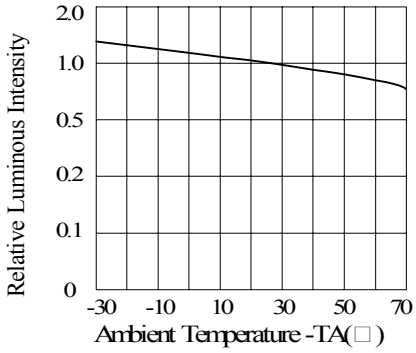
TYPICAL ELECTRICAL–OPTICAL CHARACTERISTIC CURVES



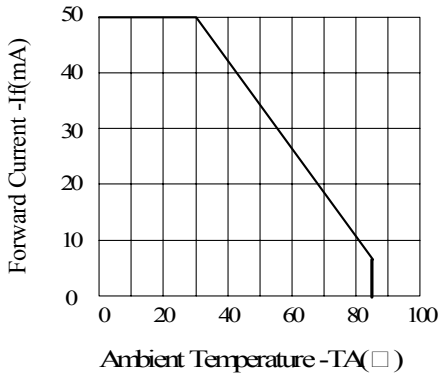
RADIATION DIAGRAM



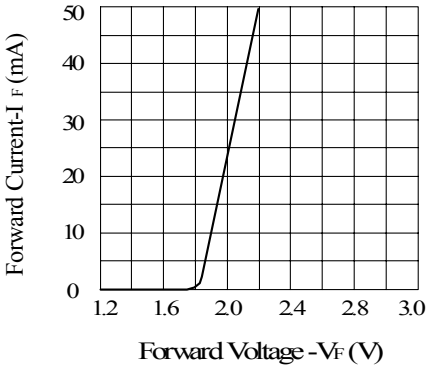
RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH



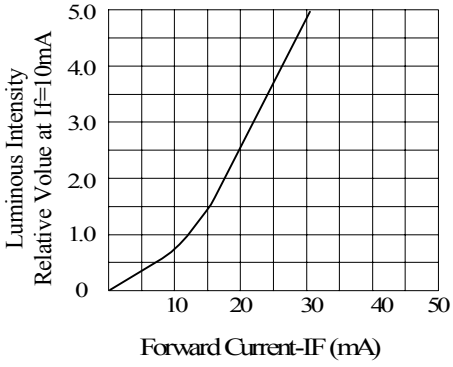
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

(Red)

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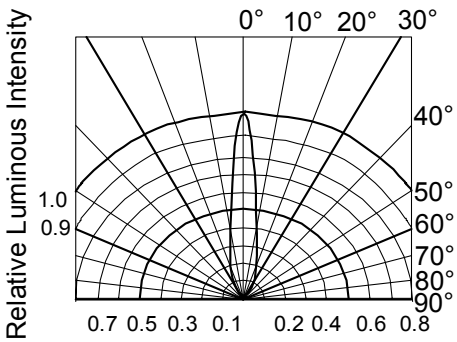
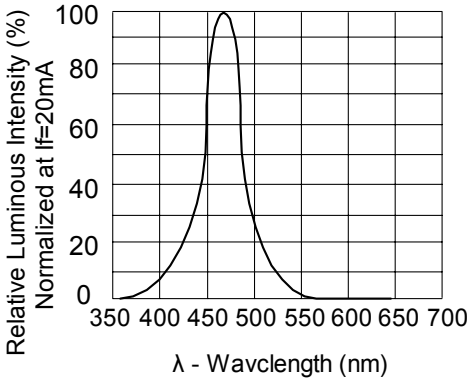
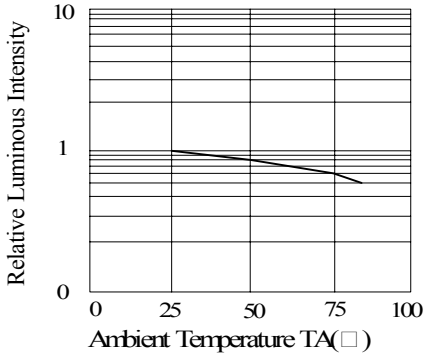
TYPICAL ELECTRICAL–OPTICAL CHARACTERISTIC CURVES



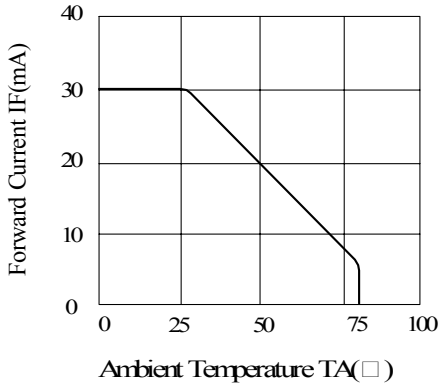
RADIATION DIAGRAM



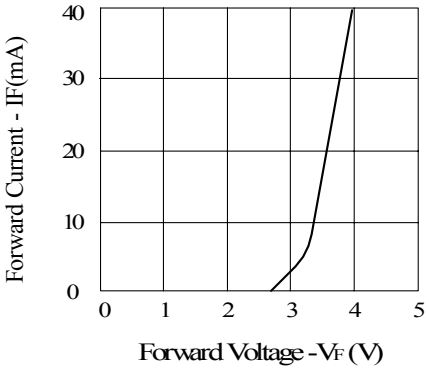
RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH



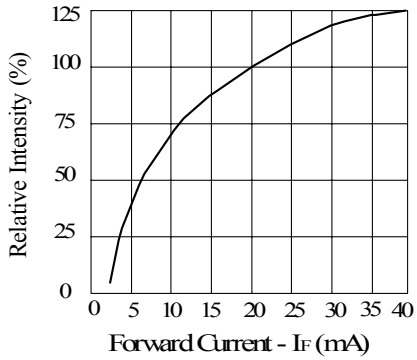
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

(Blue)