



LED Backlight
MODEL NO: BLA-7855A-YG

Device Number: DEA-813-001 REV: 1.2

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■ Features:

- High Performance
- Free Design
- Longer Life and Low Power Consumption
- Various Color :Blue,Green,Yellow Green(Standard),Orange,Amber,Red

■ Descriptions:

LED back light provides uniform ,high output backlighting with low power than CCFL and EL's. There are two back light method are available :

- (1) Bottom Backlight
- (2) Edge Backlight

■ Applications:

- LCD Backlight:
 - Medical Instruments
 - Cellular Phone
 - Viedo, Audio Equipment
 - PDA
- Office Automation Equipment
- Measuring Device Illumination



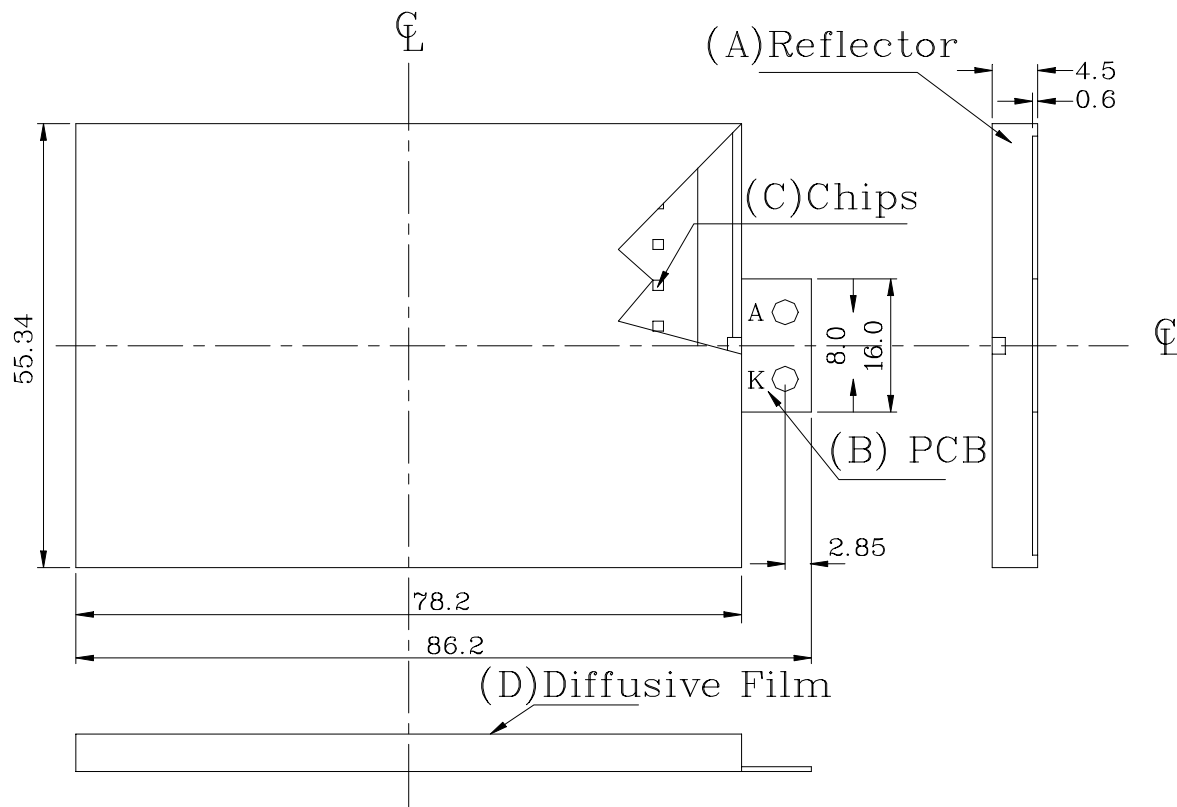
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■ Package Dimensions:



NO	PART	MATERIAL
A	Reflector	PC
B	PCB	FR4
C	Chips	GaP
D	Diffusive Film	PE

■ Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.2 mm unless otherwise noted.

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■ Absolute Maximum Ratings(Ta=25℃):

Parameter	Symbol	Rating	Unit
Forward Current	I _F	960	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	4.4	W
Operating Temperature	T _{opr}	-20 to + 70	℃
Storage Temperature	T _{stg}	-30 to + 80	℃
Soldering Temperature * ¹	* ¹ T _{sol}	260	℃

*1: Soldering time ≤ 5seconds.

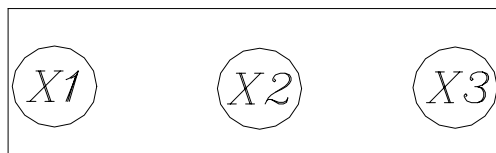
■ Electro-Optical Characteristics (Ta=25℃):
Emitting Color : Yellow Green

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Remark
Forward Voltage	V _F	I _F =480mA	--	4.2	4.6	V	
Reverse Current	I _R	V _R =5V	--	--	10	μA	
Luminous Intensity	I _V	I _F =480mA	120	200	--	cd/m ²	* 1,2
Peak Emission Wavelength	λ _p	I _F =480mA	569	--	575	nm	* 2
Spectral Line Half Width	Δλ	I _F =480mA	--	30	--	nm	
Illuminance Power Deviation	ΔEH	I _F =480mA	--	--	25	%	* 3

1. The test position of luminous intensity is shown in Fig1.

2. The test equipment is Photo detector PR650.

3. The definition of luminous intensity deviation:



$$\Delta EH\% = \frac{B(MAX) - B(MIN)}{B(MAX)} * 100\%$$

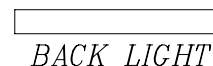

 Measuring Method: (Ta=25℃, 65%RH)
 (Measured by our equipment)

Figure 1 : Point for testing deviation → X1, X2, X3



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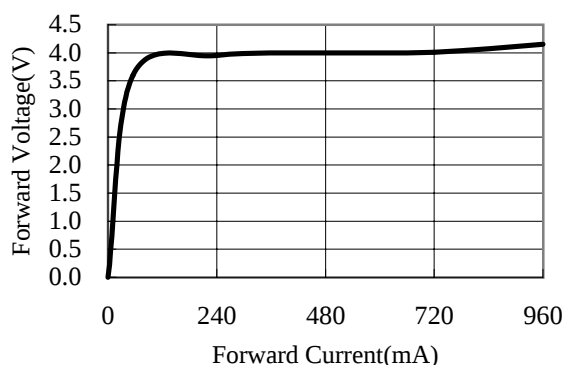
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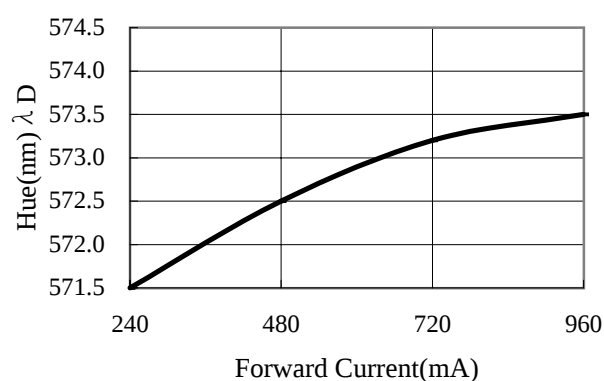
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■ Typical Electro-Optical Characteristics Curves:

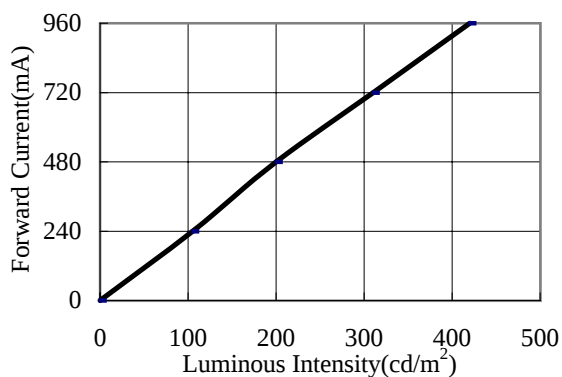
● Forward Voltage vs. Forward Current($T_a=25^{\circ}\text{C}$)



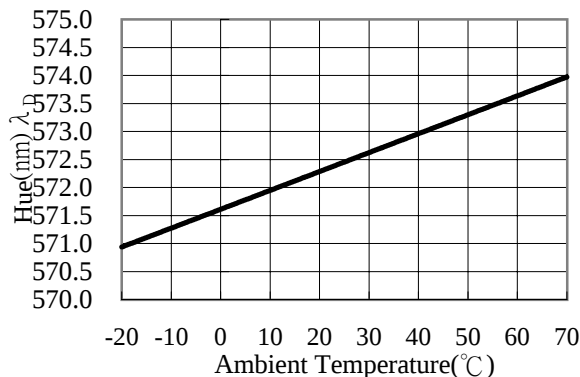
● Emission Wavelength vs. Forward Current($T_a=25^{\circ}\text{C}$)



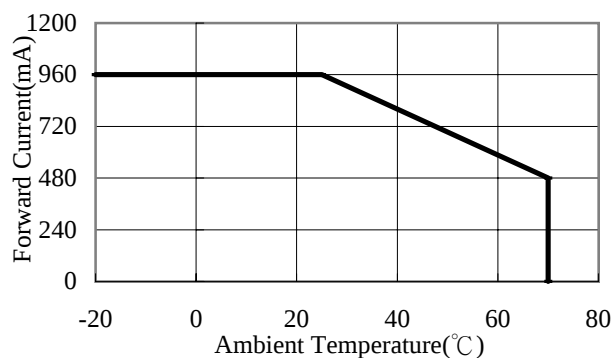
● Forward Current vs. Luminous Intensity($T_a=25^{\circ}\text{C}$)



● Wavelength vs. Ambient Temperature ($I_f=480\text{mA}$)



● Forward Current vs. Ambient Temperature





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■ Reliability Test:

Items	Conditions	Jusification Criteria	Quantity
High Temperature/ High Humidity Test	85℃,85%RH,1000hrs	A,B,C	96dies*3PCS =288dies
High Temperature Storage	85℃,1000hrs	A,B,C	96dies*3PCS =288dies
Low Temperature Storage	-30℃,1000hrs	A,B,C	96dies*3PCS =288dies
Room Temperature DC Operating Life	25℃,60±10%RH, 1000hrs/480mA	A,B,C	96dies*3PCS =288dies

* Justification criteria:

A: Not one of LED is failed.

B: Not allowed to have warpage, scraping, discoloration, distortion, separation.

C: The variation of brightness must not to be over 30% of initial value luminous intensity.

■ Circuit Diagram:

