



MODEL NO: BLA-7843A-YG

Device Number: DEA-805-001 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

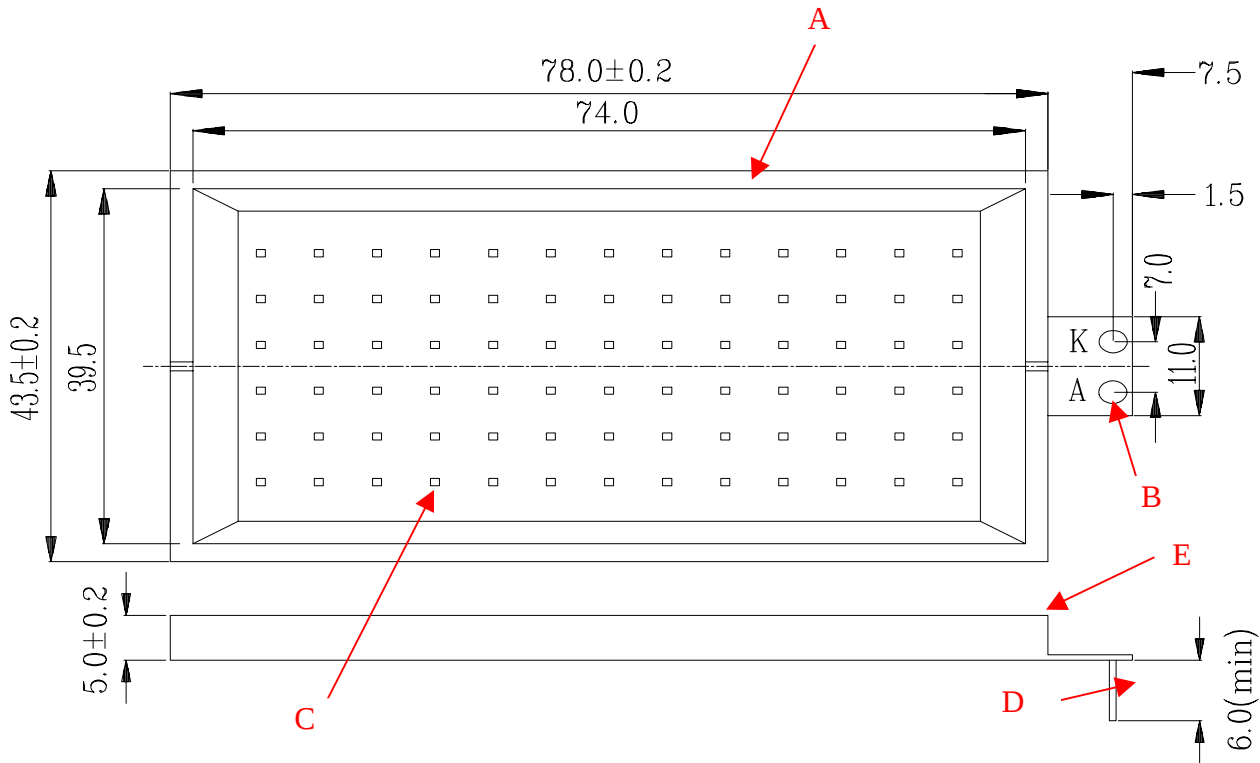


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■Package Dimensions



NO.	PART	MATERIAL
A	Reflector	PC
B	PCB	FR4
C	Chips	GaP
D	Pins	Cu+Sn
E	Diffusive Film	PE

■Notes

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

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■ Absolute Maximum Ratings(Ta=25℃)

Parameter	Symbol	Rating	Unit
Forward Current	I _F	780	mA
Reverse Voltage	V _R	8	V
Power Dissipation	P _D	3.6	W
Operating Temperature	T _{opr}	-20 to + 70	℃
Storage Temperature	T _{stg}	-30 to + 80	℃
Soldering Temperature	*1T _{sol}	260	℃

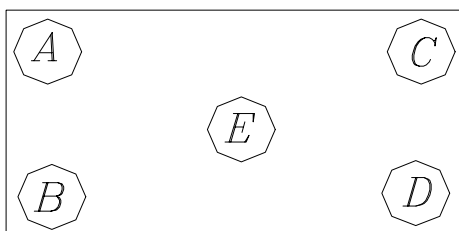
*1: Soldering time ≤ 5seconds.

■ Electro-Optical Characteristics (Ta=25℃)

Emitting Color : Yellow Green

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Remark
Forward Voltage	V _F	I _F =390mA	--	4.2	4.6	V	
Reverse Current	I _R	V _R =8V	--	--	0.2	mA	
Luminous Intensity	I _v	I _F =390mA	120	180	--	cd/m ²	* 1,2
Emission Wavelength	λ _p	I _F =390mA	569	--	575	nm	* 2
Spectral Line Half Width	Δ λ	I _F =390mA	--	30	--	nm	
Illuminance Power Deviation	Δ EH	I _F =390mA	--	--	25	%	* 3

- 1.The test position of luminous intensity is Fig1.
- 2.The test equipment is Photo Research PR650.
- 3.The defination of luminous intensity deviation.



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

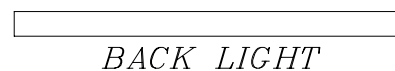


Figure 1 :Point for testing deviation→A,B,C,D,E

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

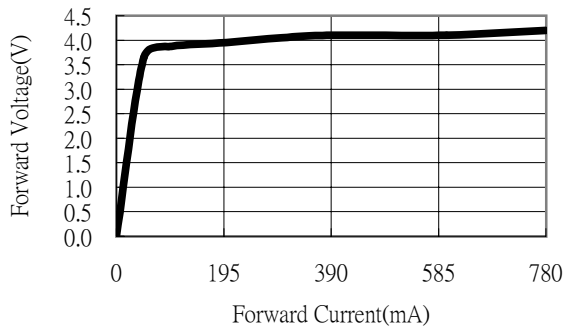
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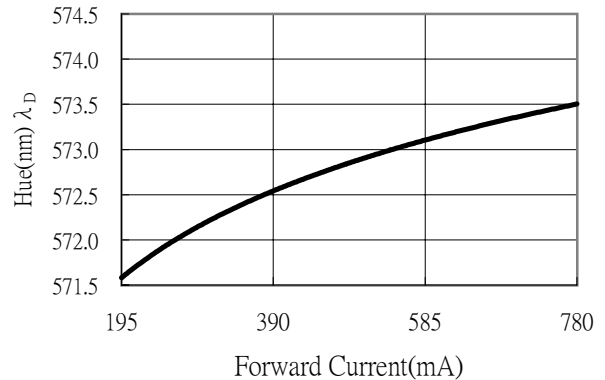
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Typical Electro-Optical Characteristics Curves

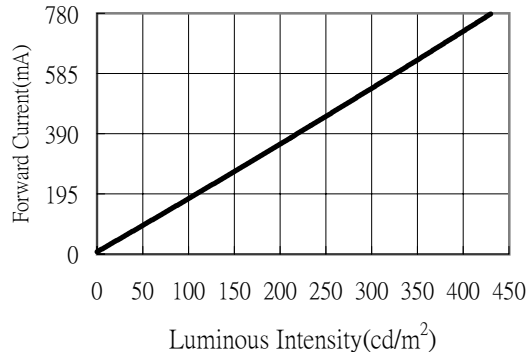
● Forward Voltage vs. Forward Current ($T_a=25^\circ\text{C}$)



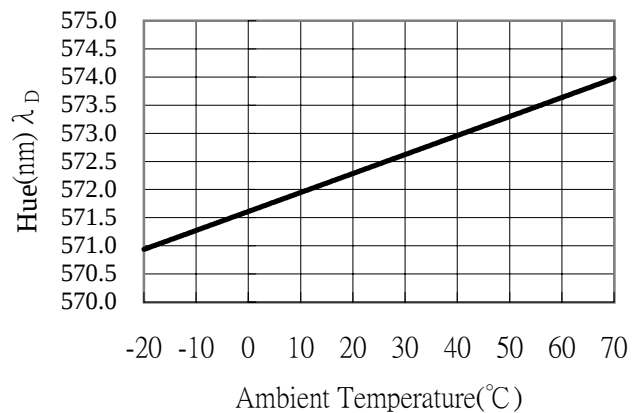
● Emission Wavelength vs. Forward Current ($T_a=25^\circ\text{C}$)



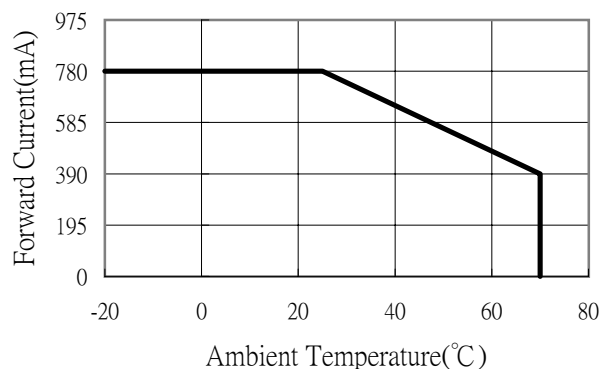
● Forward Current vs. Luminous Intensity ($T_a=25^\circ\text{C}$)



● Wavelength vs. Ambient Temperature ($I_f=390\text{mA}$)



● Forward Current vs. Ambient Temperature





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■Reliability Test

Items	Conditions	Jusification Criteria	Quantity
High Temperature/ High Humidity Test	85℃ ,85%RH,1000hr	A,B,C	78dies*2pcs =156dies
High Temperature Storage	85℃ ,1000hr	A,B,C	78dies*2pcs =156dies
Low Temperature Storage	-30℃ ,1000hr	A,B,C	78dies*2pcs =156dies
Room Temperature DC Operating Life	25℃ ,60±10%RH, 1000hr/390mA	A,B,C	78dies*2pcs =156dies

- * 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

