EVERLIGHT ELECTRONICS CO.,LTD.

DATA SHEET

MODEL NO ：BLB-9021Q-SUG

DATE ：2000/7/18

DEPARTMENT：R&D CENTER

REVISION ：1.0

RECEIVED			
■ MASS PRODUCTION			
□ PRELIMINARY			
□ CUSTOMER DESIGN			
DEVICE NUMBER : DEA-870-001			
PAGE :4			
CUSTOMER	DESIGNER	CHECKER	APPROVER

REV	DESCRIPTION	RELEASE DATE

OFFICE : NO 25,Lane 76,Chung Yang Rd,Sec.3 Tucheng, Taipei 236, Taiwan, R.O.C.
TEL : 886-2-2267-2000, 2267-9936
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http://www.everlight.com

EVERLIGHT ELECTRONICS CO., LTD.

LED Backlight
MODEL NO:BLB-9021Q-SUG

Device Number:DEA-870-001 REV:1.0
Page:1/4 ECN:

■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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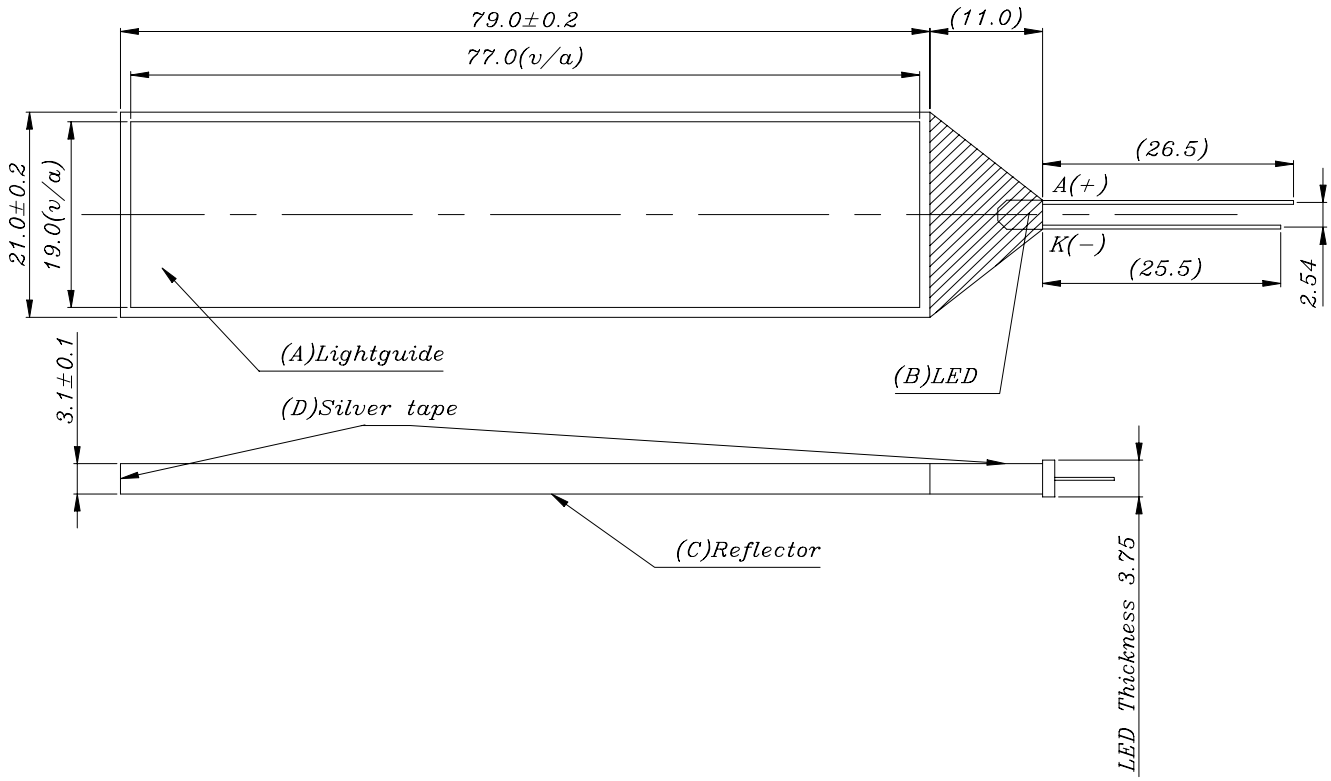
■Package Dimensions:



NO	PART	MATERIAL
A	Light Guide	Acrylic
B	LED	3mm
C	Reflector	PE
D	Silver tape	PE

■Notes:

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

■Absolute Maximum Ratings(Ta=25℃):

Parameter	Symbol	Rating	Unit
Forward Current	I_F	25	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	0.1	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℃):

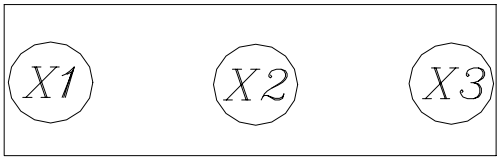
Emitting Color : Green

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Remark
Forward Voltage	V_F	I_F=20mA	--	3.3	3.8	V	
Reverse Current	I_R	V_R=5V	--	--	10	μA	
Luminous Intensity	I_V	I_F=20mA	50	--	--	cd/m^2	＊1,2
Emission Wavelength	λ_D	I_F=20mA	--	535	--	nm	＊2
Spectral Line Half Width	$\triangle\lambda$	I_F=20mA	--	45	--	nm	
Illuminance Power Deviation	$\triangle$EH	I_F=20mA	--	--	25	%	＊3

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

2.The test equipment is Photo detector UDT:Model # 2153.

3.The defination of luminous intensity deviation:



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

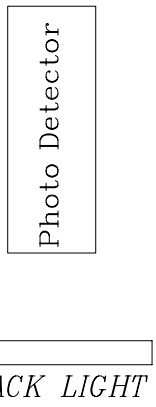


Figure 1 :Point for testing deviation→X1,X2,X3

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

■Reliability Test:

Items	Conditions	Jusification Criteria	Quantity
High Temperature/ High Humidity Test	70℃,85%RH,1000hrs	A,B,C	1dies*5PCS =5dies
High Temperature Storage	70℃,1000hrs	A,B,C	1dies*5PCS =5dies
Low Temperature Storage	-30℃,1000hrs	A,B,C	1dies*5PCS =5dies
Room Temperature DC Operating Life	25℃,60±10%RH, 1000hrs/20mA	A,B,C	1dies*5PCS =5dies

＊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: