

EVERLIGHT ELECTRONICS CO.,LTD.

Technical Data Sheet

12.8*6.3mm Light Bars

Features :

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.
- Pb free
- The product itself will remain within RoHS compliant version

Descriptions :

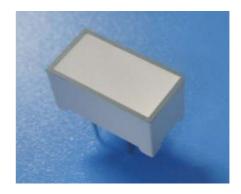
- The ELB-1010 series is 12.8*6.3mm light bar display. designed for viewing distances up to 7 meters.
- There are separate anodes and cathodes for each light segment and choice of five colors is offered.
- These device are available with white offering a wide possibility in design.

Applications :

- Audio equipment
- Instrument panels
- Digital read out display

	Chip		
PART NO.	Material	Emitted Color	
ELB-1010SURWA/S530-A3	AlGaInP	Brilliant Red	

ELB-1010SURWA/S530-A3



EVERLIGHT ELECTRONICS CO.,LTD. Device Number : DDF-0000375 http://www.everlight.com Prepared date:2009/6/11 Rev.: 2 Page: 1 of 6 Prepared by: YanLi Zhong

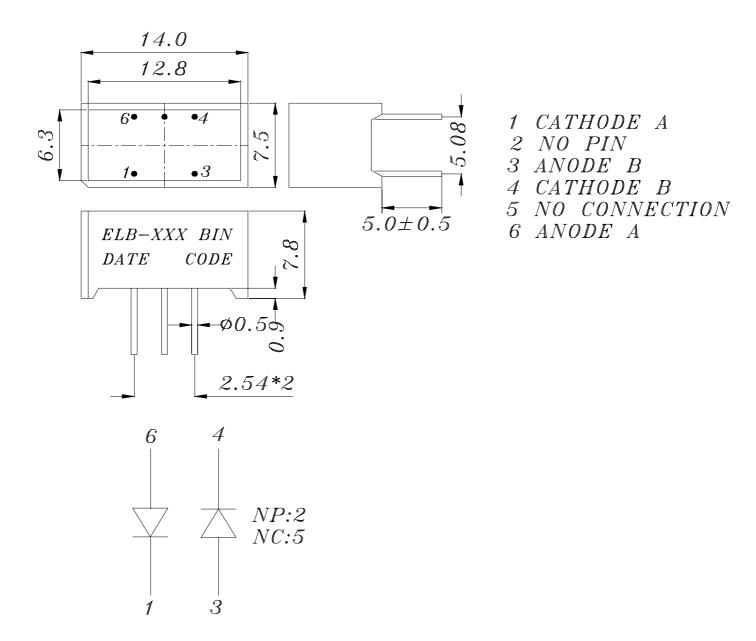


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ELB-1010SURWA/S530-A3

Package Dimensions



Notes:1.All dimensions are in millimeters , tolerance is 0.25mm unless otherwise noted.2.Above specification may be changed without notice.

Supplier will reserve authority on material change for above specification.

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ELB-1010SURWA/S530-A3

Parameter	Symbol	Rating	Unit	
Reverse Voltage	VR	5	V	
Forward Current	IF	25	mA	
Operating Temperature	Topr	-40 to +85	°C	
Storage Temperature	Tstg	-40 to +100	°C	
Soldering Temperature *	Tsol	260	°C	
Electrostatic Discharge	ESD	2000	V	
Power Dissipation	Pd	60	mW	

Absolute maximum ratings at $Ta = 25^{\circ}C$:

Note: *Soldering time \leq 5 seconds.

Electronic optical characteristics :

Parameter		Symbol	Min.	Тур.	Max.	Unit	Condition	
Luminous Intensity	Per segment	Iv		16.0		mcd	IF=2mA	
			30.0	67.0		mcd	IF=10mA	
Peak Wavelength		λp		632		nm	IF=20mA	
Dominant Wavelength		λd		624		nm	IF=20mA	
Spectrum Radiation Bandwidth		$ riangle \lambda$		20		nm	IF=20mA	
Forward Voltage		VF		2.0	2.4	V	IF=20mA	
Reverse Current		IR			100	μΑ	VR=5V	

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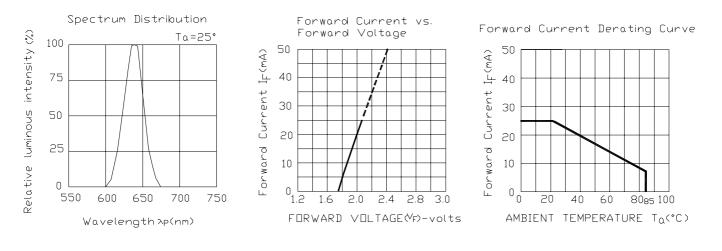
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Typical Electro-Optical Characteristic Curves:

(SUR)



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Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below.

Confidence level: 97%

LTPD: 3%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Solder Heat	TEMP: $260^{\circ}C \pm 5^{\circ}C$	5 SEC	76 PCS		0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -40°C 30min	50 CYCLE	76 PCS	$Iv \leq Ivt*0.5$ or $Vf \geq U$ or	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	76 PCS		0/1
4	High Temperature Storage	TEMP: 100°C	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP:-40°C	1000 HRS	76 PCS	Vf≦L	0/1
6	DC Operating Life	IF = 10 mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS		0/1

Note: Ivt: The test Iv value of the chip before the reliablility test

 $\operatorname{Iv}\,$: The test value of the chip that has completed the reliablility test

- U: Upper Specification Limit
- L: Lower Specification Limit

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LIGHTING FOREVER

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ELB-1010SURWA/S530-A3

Packing Quantity Specification

- 1. 35PCS/tube, 140 tubes/box
- 2. 4Boxes/Carton

Label Form Specification



CPN: Customer's Production Number P/N : Production Number QTY: Packing Quantity CAT: Ranks HUE: Dominant Wavelength REF: Reference LOT No: Lot Number MADE IN CHINA: Production Place

Notes :

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.

2. When using this product, please observe the absolute maximum ratings and the instructions

for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for

any damage resulting from use of the product which does not comply with the absolute

maximum ratings and the instructions included in these specification sheets.

3. These specification sheets include materials protected under copyright of EVERLIGHT corporation.

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