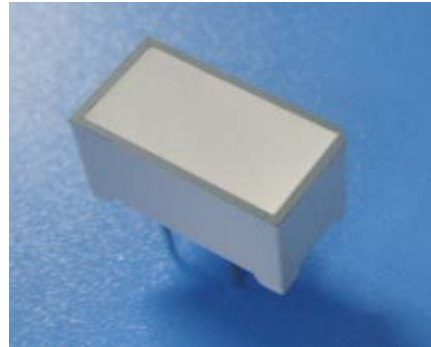


Technical Data Sheet
12.8*6.3mm Light Bars

ELB-1010SURWA/S530-A3

■ 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

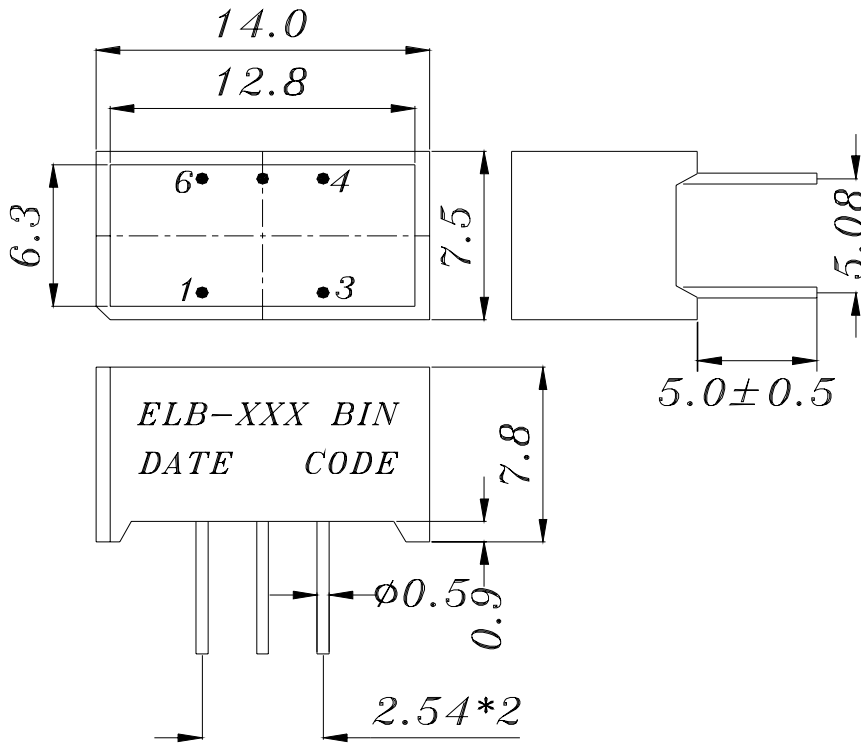
| PART NO. | Chip | |
|-----------------------|----------|---------------|
| | Material | Emitted Color |
| ELB-1010SURWA/S530-A3 | AlGaInP | Brilliant Red |

BG0605177 50014346

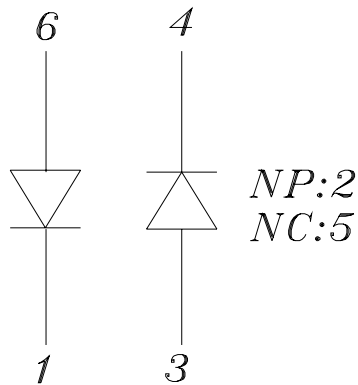
Technical Data Sheet
12.8*6.3mm Light Bars

ELB-1010SURWA/S530-A3

Package Dimensions



- 1 CATHODE A
- 2 NO PIN
- 3 ANODE B
- 4 CATHODE B
- 5 NO CONNECTION
- 6 ANODE A



- 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.

ELB-1010SURWA/S530-A3

■ Absolute maximum ratings at Ta = 25°C :

| 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 |

Note: *Soldering time \leq 5 seconds.

■ Electronic optical characteristics :

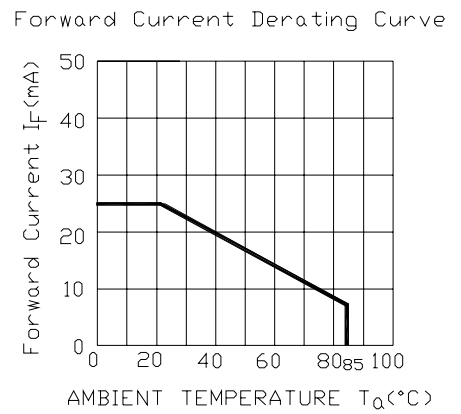
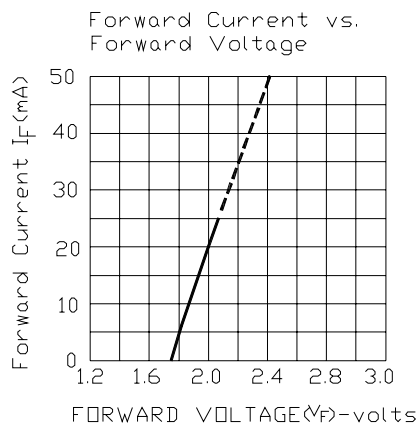
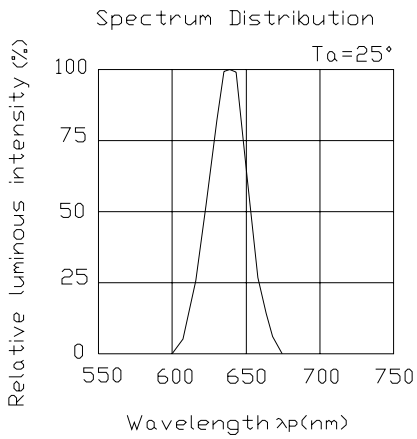
| Parameter | | Symbol | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|-------------|------------------|------|------|------|---------|-----------|
| Luminous Intensity | Per segment | Iv | ---- | 16.0 | ---- | mcd | IF=2mA |
| | | | 30.0 | 67.0 | ---- | mcd | IF=10mA |
| Peak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



ELB-1010SURWA/S530-A3

■ Typical Electro-Optical Characteristic Curves:

(SUR)





Technical Data Sheet

12.8*6.3mm Light Bars

ELB-1010SURWA/S530-A3

■ 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°C ± 5 °C | 5 SEC | 76 PCS | $I_v \leq I_{vt} * 0.5$ or $V_f \geq U$ or $V_f \leq L$ | 0/1 |
| 2 | Temperature Cycle | H : +85°C 30min § 5 min L : -40°C 30min | 50 CYCLE | 76 PCS | | 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 | | 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 : I_{vt} : The test I_v value of the chip before the reliability test

I_v : The test value of the chip that has completed the reliability test

U : Upper Specification Limit

L : Lower Specification Limit



Technical Data Sheet

12.8*6.3mm Light Bars

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. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.

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