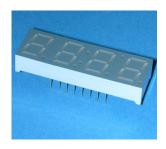


# **DATASHEET**

# Display • Through-hole ELF-415SURWA/S530-A3



### **Features**

- · Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.
- Pb free and RoHS compliant.

### **Description**

- The ELF-415SURWA/S530-A3 is a 10.0mm (0.4") digit height seven-segment display.
- The display provides excellent reliability in bright ambient light.
- The device is made with white segments and gray surface.

### **Applications**

- · Home appliances
- · Instrument panels
- · Digital readout displays

LifecyclePhase:



### **Device Selection Guide**

Chip Materials	Emitted Color	Resin Color
AlGaInP	Brilliant Red	White Diffusion

### Absolute Maximum Ratings (Ta=25)

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_{R}$	5	V
Forward Current	l <sub>F</sub>	25	mA
Peak Forward Current (Duty 1/10 @1KHz)	I <sub>FP</sub>	60	mA
Power Dissipation	Pd	60	mW
Operating Temperature	$T_{opr}$	-40 ~ +85	
Storage Temperature	$T_{stg}$	-40 ~ +100	
Soldering Temperature (Soldering time 5 seconds)	$T_{sol}$	260	

## **Electro-Optical Characteristics (Ta=25)**

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity*1	lv	5.6	8.9		mcd	I <sub>F</sub> =10mA
Peak Wavelength	λр		632		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		624		nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ		20		nm	I <sub>F</sub> =20mA
Forward Voltage	$V_{F}$		2.0	2.4	V	I <sub>F</sub> =20mA
Reverse Current	$I_R$			100	μΑ	V <sub>R</sub> =5V

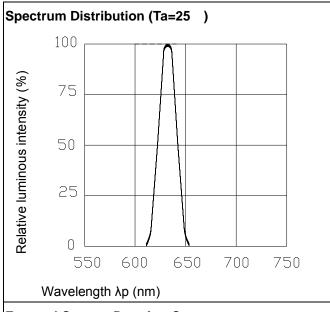
- 1. Luminous Intensity is a average value which is measured one 7-segment.
- 2. Tolerance of Luminous Intensity: ± 10 %
- 3. Tolerance of Forward Voltage: ± 0.1V

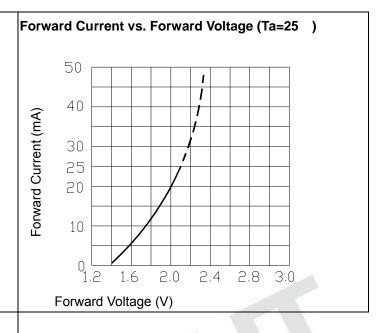
LifecyclePhase: Approved

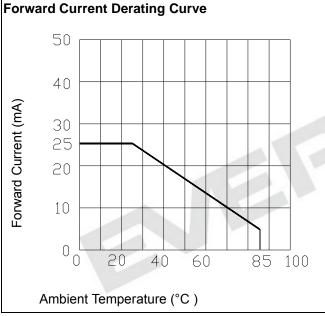
rired Period: Forever



### **Typical Electro-Optical Characteristics Curves**





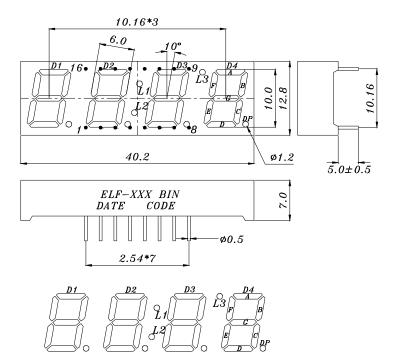


LifecyclePhase: Approved

mired Period: Forever



### **Package Dimension & Internal Circuit Diagram**



COMMON CATHODE

1 COMMON CATHODE D1

2 COMMON CATHODE D2

3 ANODE D

4 COMMON CATHODE L1,L2

5 ANODE E

6 COMMON CATHODE D3

7 ANODE DP

8 COMMON CATHODE D4

9 ANODE L3

10 CATHODE L3

11 ANODE F

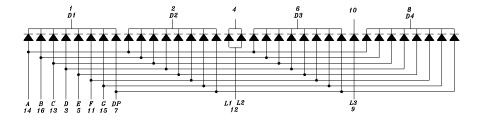
12 ANODE L1,L2

13 ANODE C

14 ANODE C

14 ANODE G

16 ANODE B



Note: Tolerances unless mentioned ±0.25mm. Unit = mm

Approved

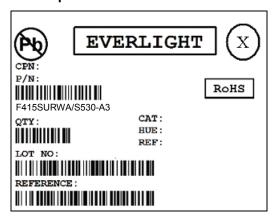
LifecyclePhase:

rired Period: Forever

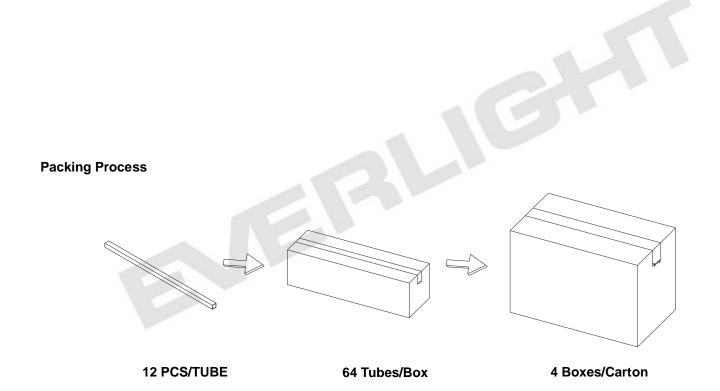


### **Packing Materials**

### **Label Explanation**



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- · CAT: Luminous Intensity Rank
- HUE: Reference
- REF: Reference
- · LOT No: Lot Number
- · REFERENCE: Volume Label code



LifecyclePhase:

rired Period: Forever



### **Application Restrictions**

- 1. Specification described in this document. 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.
- 4. ESD (Electrostatic Discharge)
  - The products are sensitive to static electricity or surge voltage. ESD can damage a die and its reliability. When handling the products, the following measures against electrostatic discharge are strongly recommended:

Eliminating the charge

Grounded wrist strap, ESD footwear, clothes, and floors

Grounded workstation equipment and tools

ESD table/shelf mat made of conductive materials

- Proper grounding is required for all devices, equipment, and machinery used in product assembly. Surge protection should be considered when designing of commercial products.
- If tools or equipment contain insulating materials such as glass or plastic,

the following measures against electrostatic discharge are strongly recommended:

Dissipating static charge with conductive materials

Preventing charge generation with moisture

Neutralizing the charge with ionizers

5. The LEDs should be operated with forward bias. The driving circuit must be designed so that the LEDs are not subjected to forward or reverse voltage while it is off. If reverse voltage is continuously applied to the LEDs, it may cause migration resulting in LED damage.

LifecyclePhase:

# 单击下面可查看定价,库存,交付和生命周期等信息

>>Everlight(亿光)