# EVERLIGHT

# DATASHEET

Display Through-hole ELD-511SDRWB/A3/S982



# Features

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

# Description

- The ELD-511SDRWB/A3/S982 is a 14.22mm (0.56") digit height seven-segment display.
- The display provides excellent reliability in bright ambient light.
- The device is made with white segments and black surface.

# Applications

- Home appliances
- Instrument panels
- Digital readout displays

**Expired Period: Forever** 

### **Device Selection Guide**

Chip Materials	Emitted Color	Resin Color		
AlGaInP	Deep-Red	White Diffusion		

#### Absolute Maximum Ratings (Ta=25)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <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 <sub>opr</sub>	-40 ~ +85	
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	
Soldering Temperature (Soldering time 5 seconds)	T <sub>sol</sub>	260	

# Electro-Optical Characteristics (Ta=25)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity <sup>*1</sup>	lv	4.0	8.9		mcd	I <sub>F</sub> =10mA
Peak Wavelength	λр		650		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		639		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 <sub>R</sub>			100	μA	V <sub>R</sub> =5V

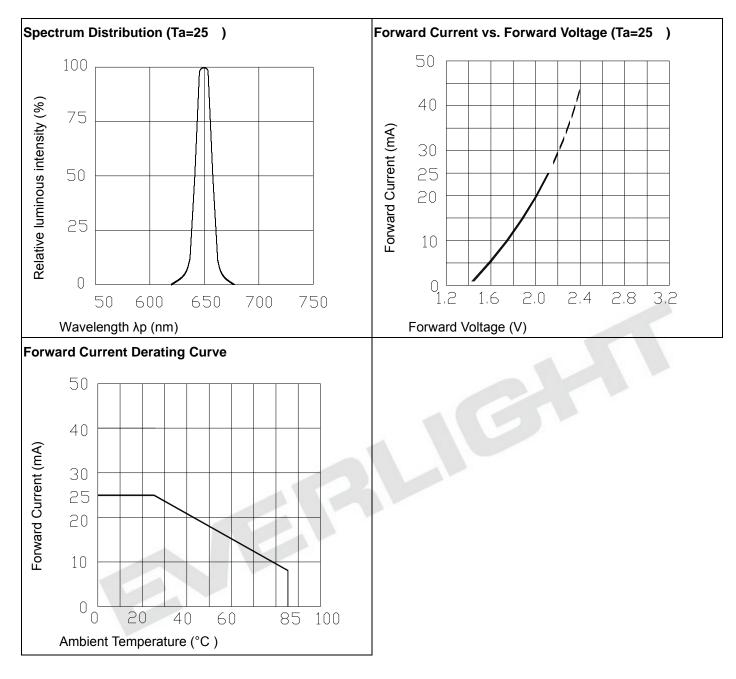
Note:

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

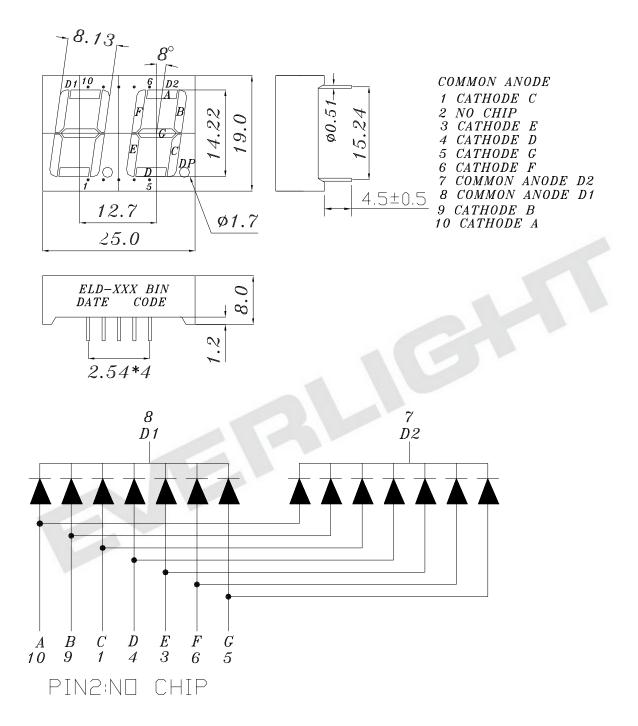
# **Typical Electro-Optical Characteristics Curves**



LifecyclePhase: Approved

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#### Package Dimension & Internal Circuit Diagram

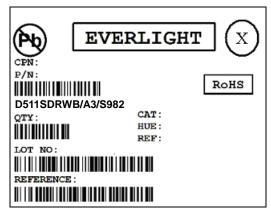


Note: Tolerances unless mentioned ±0.25mm. Unit = mm

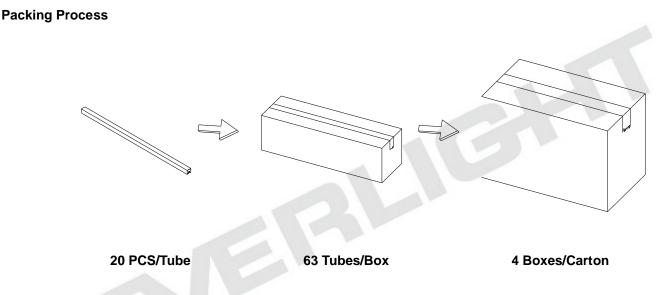
R \_\_\_\_ Copyright © 2010, Everlight All Rights Reserved. Release Date : Jan. 18, 2013 Issue No : DDF-0001561 Rev.1



#### 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



#### **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