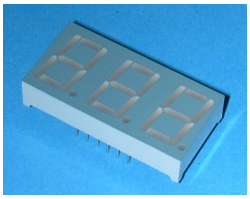
DATASHEET

Display ▪ Through-hole
ELT-512SUBWA/X9



Features

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

Description

- The ELT-512SUBWA/X9 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 gray surface.

Applications

- Home appliances
- Instrument panels
- Digital readout displays

Device Selection Guide

Chip Materials	Emitted Color	Resin Color
InGaN	Blue	White Diffusion

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Peak Forward Current (Duty 1/10 @1KHz)	I_{FP}	100	mA
Power Dissipation	Pd	110	mW
Operating Temperature	T_{opr}	-40 ~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +100	℃
ESD (Classification acc. AEC Q101)	ESD_{HBM}	150	V
Soldering Temperature (Soldering time≦5 seconds)	T_{sol}	260	℃

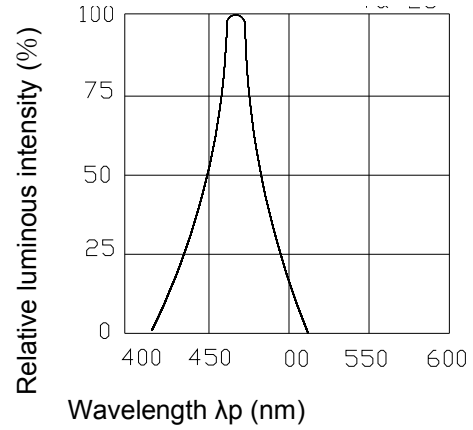
Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity[*1]	Iv	11	24	-----	mcd	I_F=10mA
Peak Wavelength	λp	-----	468	-----	nm	I_F=20mA
Dominant Wavelength	λd	-----	470	-----	nm	I_F=20mA
Spectrum Radiation Bandwidth	Δλ	-----	35	-----	nm	I_F=20mA
Forward Voltage	V_F	-----	3.5	4.3	V	I_F=20mA
Reverse Current	I_R	-----	-----	100	μA	V_R=5V

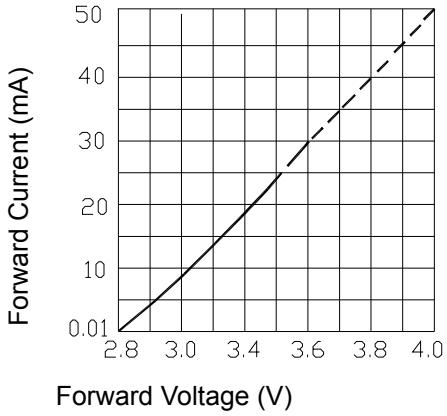
Note:
1. Luminous Intensity is a average value which is measured one 7-segment.
2. Tolerance of Luminous Intensity: ± 10 %
3. Tolerance of Forward Voltage: ± 0.1V

Typical Electro-Optical Characteristics Curves

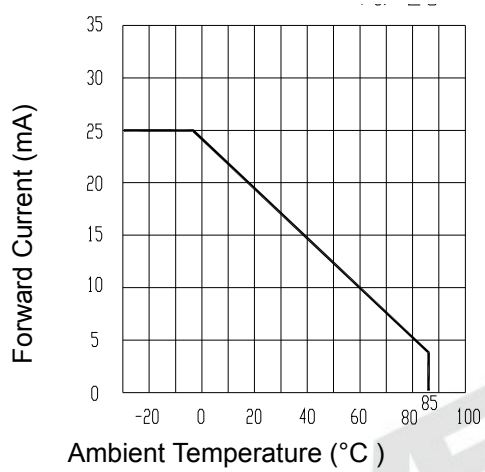
Spectrum Distribution (Ta=25℃)



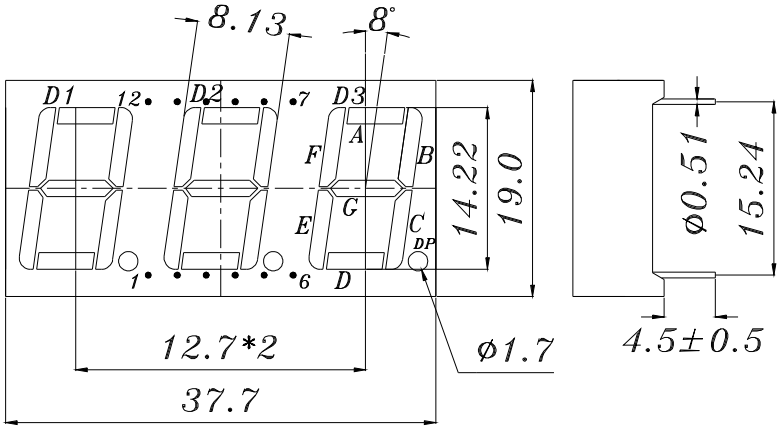
Forward Current vs. Forward Voltage (Ta=25℃)

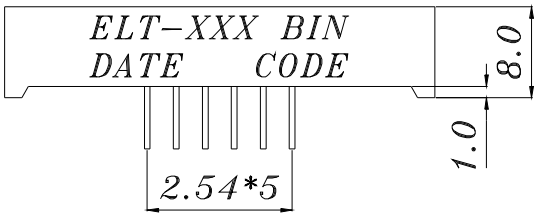


Forward Current Derating Curve

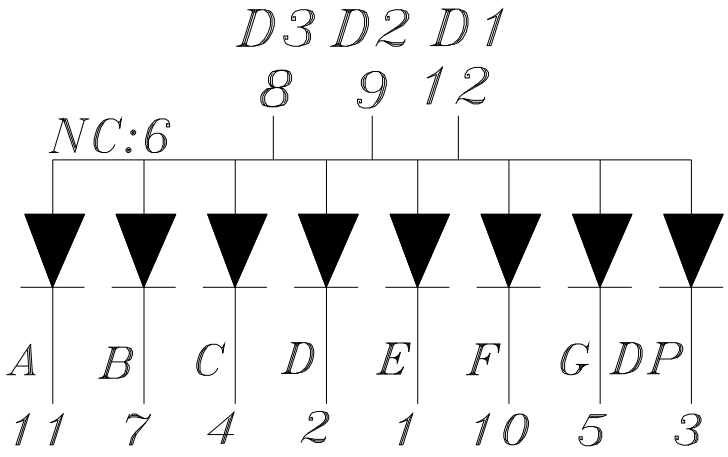


Package Dimension & Internal Circuit Diagram



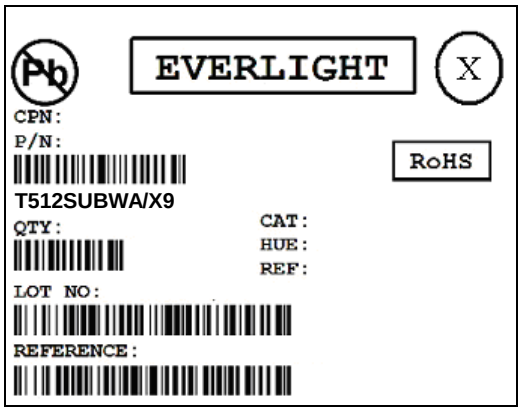


COMMON ANODE
1 CATHODE E
2 CATHODE D
3 CATHODE DP
4 CATHODE C
5 CATHODE G
6 NO CONNECT
7 CATHODE B
8 COMMON ANODE D3
9 COMMON ANODE D2
10 CATHODE F
11 CATHODE A
12 COMMON ANODE D1



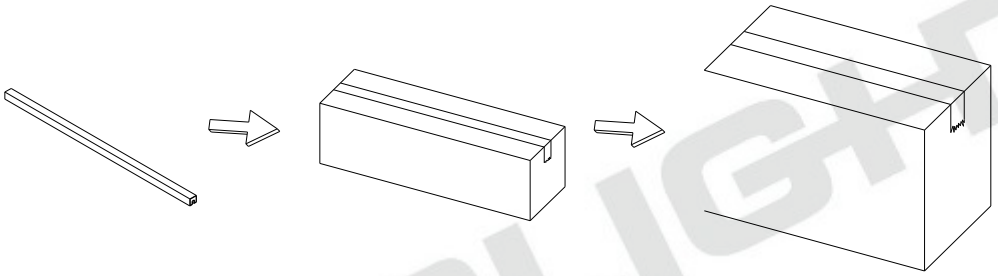
Note: Tolerances unless mentioned ±0.25mm. Unit = mm

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

Packing Process



13 PCS/Plate **63 Plates/Box** **4 Boxes/Carton**

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.