



## EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDS-512-018 REV: 1

0.56" Single Digit Displays

PART NO. : ELS-512UBWA ECN :                      Page: 1/5

■ Features :

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.

■ Applications:

- Audio equipment
- Instrument panels
- Digital read out display

■ Descriptions :

- The ELS-512 series is a large 14.22mm (0.56")high seven segment display designed for viewing distances up to 7 meters.
- These displays provide excellent reliability in bright ambient light.
- These devices are made with white segments and gray surface.

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PART NO.	Chip	
	Material	Emitted Color
ELS-512UBWA	GaN/SiC	Blue

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FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

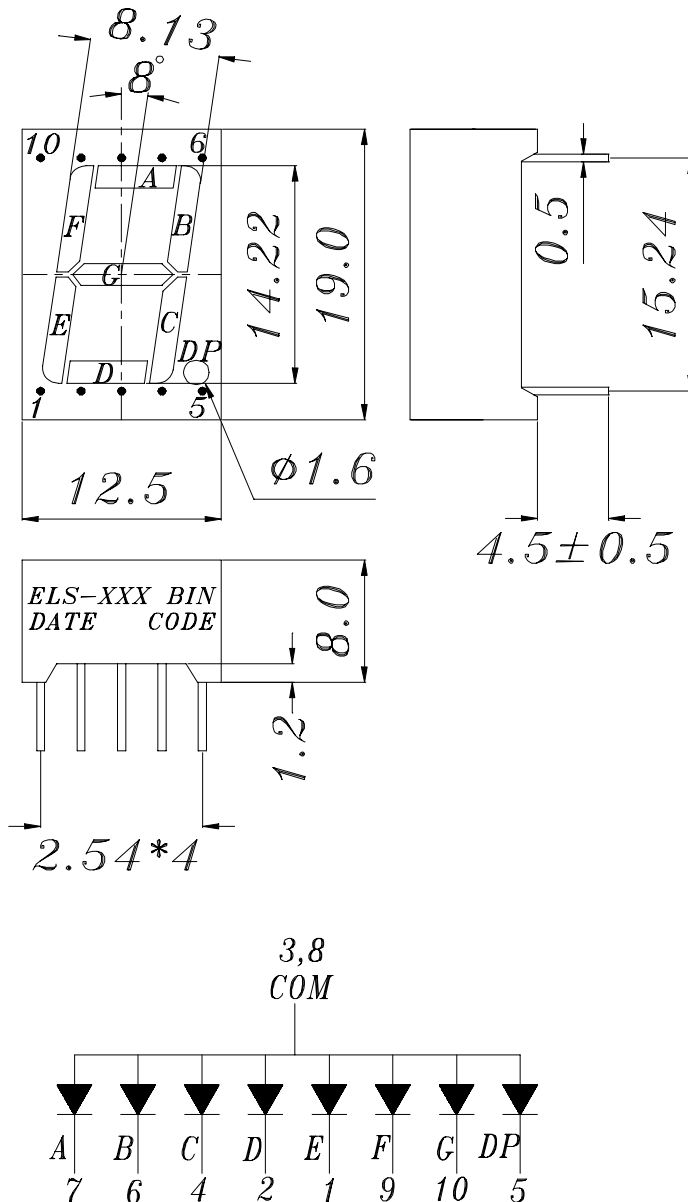
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0.56" Single Digit Displays

PART NO. :       ELS-512UBWA       ECN :        Page:       2/5      

■ Package Dimensions:



COMMON ANODE  
 1 CATHODE E  
 2 CATHODE D  
 3 COMMON ANODE  
 4 CATHODE C  
 5 CATHODE DP  
 6 CATHODE B  
 7 CATHODE A  
 8 COMMON ANODE  
 9 CATHODE F  
 10 CATHODE G

■ 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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## ■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	Pd	140	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	IF(Peak)	70	mA

## ■ Electronic optical characteristics :

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	Iv	2.0	3.2	----	mcd	IF=10mA
	Per decimal point		0.7	1.0	----		
Peak Wavelength		λ p	----	428	----	nm	IF=20mA
Dominant Wavelength		λ d	----	466	----	nm	IF=20mA
Spectrum Radiation	Bandwidth	△ λ	----	65	----	nm	IF=20mA
Forward Voltage		VF	----	3.8	4.5	V	IF=20mA
Reverse Current		IR	----	----	100	μ A	VR=5V



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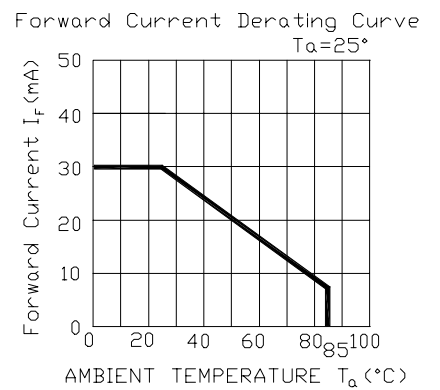
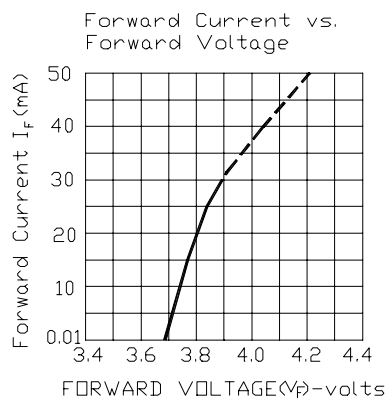
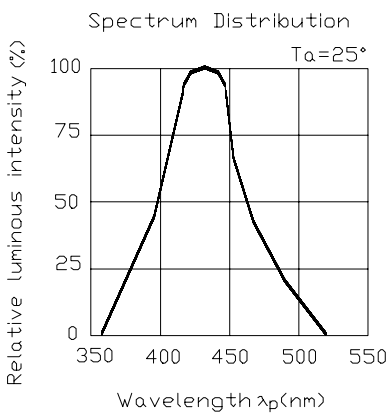
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## Typical Electro-Optical Characteristic Curves:

UB





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	Reliability test items and conditions:
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NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ┆ 5 min L : -55°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 <small>DataSheet4U.com</small>	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°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