



Device Number : CDDS-516-016 REV: 1

0.52" Single Digit Displays

PART NO. : ELS-516SURWA/S530-A3 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-516 series is a large 13.2mm (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.

PART NO.	Chip	
	Material	Emitted Color
ELS-516SURWA/S530-A3	AlGaInP	Hyper Red

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<http://www.everlight.com>

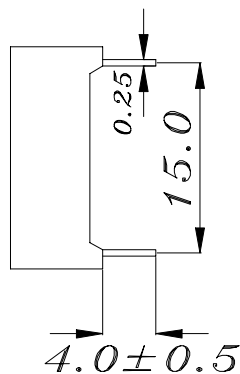
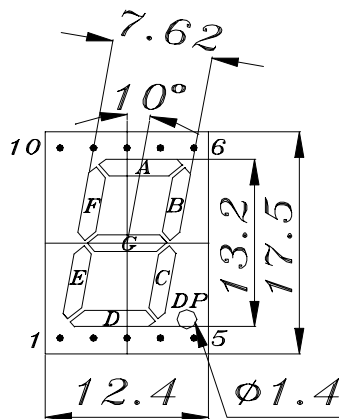
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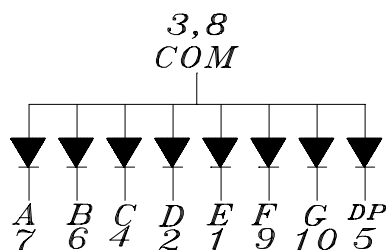
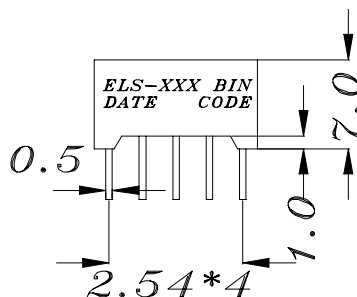
0.52" Single Digit Displays

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■ 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	25	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	IF(Peak)	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	I _v	1.5	2.5	----	mcd	IF=2mA
			5.6	10.0	----		IF=10mA
	Per decimal point		0.4	0.6	----	mcd	IF=2mA
			2.0	3.0	----		IF=10mA
Peak Wavelength		λ _p	----	632	----	nm	IF=20mA
Dominant Wavelength		λ _d	----	624	----	nm	IF=20mA
Spectrum Radiation	Bandwidth	△ λ	----	20	----	nm	IF=20mA
Forward Voltage		V _F	----	2.0	2.4	V	IF=20mA
Reverse Current		I _R	----	----	10	μ A	V _R =5V



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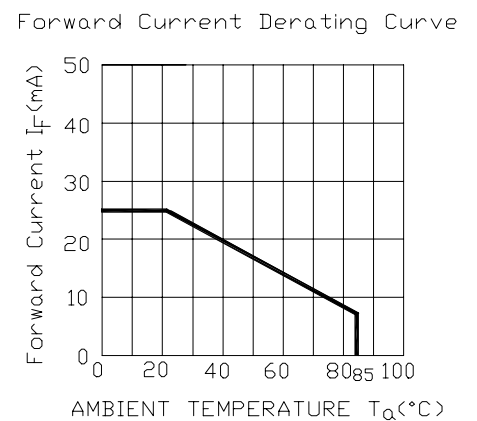
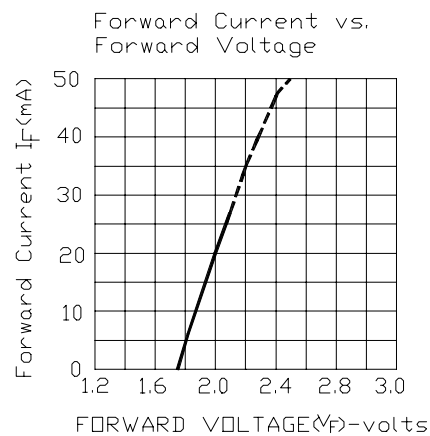
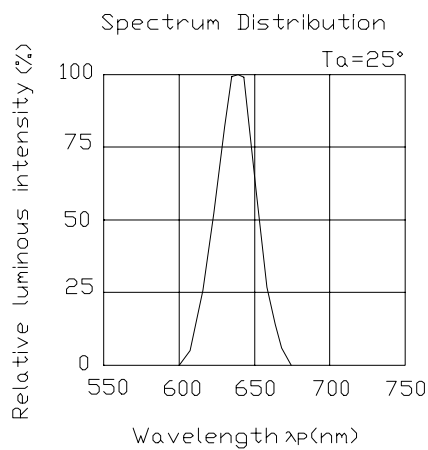
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■ Typical Electro-Optical Characteristic Curves:

<SUR>





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Reliability test items and conditions:

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	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