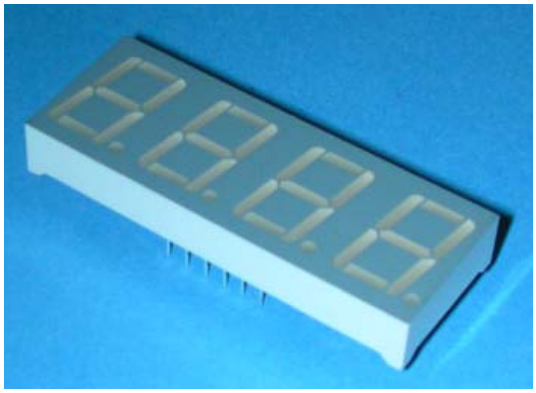
EVERLIGHT ELECTRONICS CO.,LTD.

Technical Data Sheet
0.56" Quadruple Digit Displays

ELF-512SURWA/S530-A4



■ Features :

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

■ Descriptions :

- The ELF-512 series is a large l4.22mm (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.

■ Applications :

- Audio equipment
- Instrument panels
- Digital read out display

PART NO.	Chip	
	Material	Emitted Color
ELF-512SURWA/S530-A4	AlGaInP	Hyper Red

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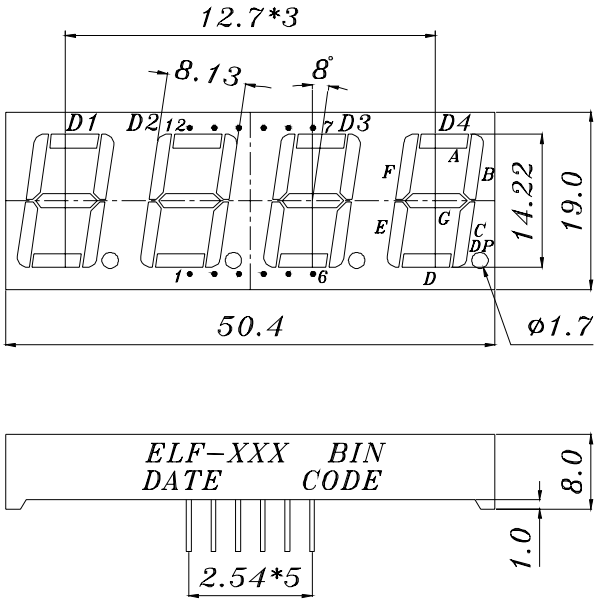
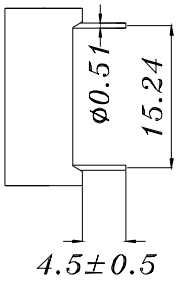
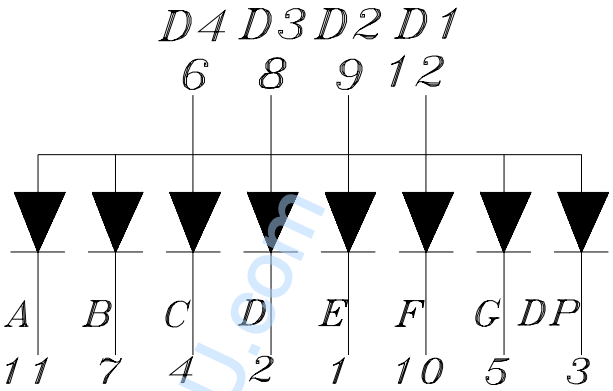
Package Dimensions





COMMON ANODE
1. CATHODE E
2. CATHODE D
3. CATHODE DP
4. CATHODE C
5. CATHODE G
6. COMMODE ANODE D4
7. CATHODE B
8. COMMON ANODE D3
9. COMMON ANODE D2
10. CATHODE F
11. CATHODE A
12. COMMON ANODE D1



Notes: 1.All dimensions arein 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℃ :

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Operating Temperature	Topr	-40 to +85	℃
Storage Temperature	Tstg	-40 to +100	℃
Soldering Temperature	Tsol	260 ± 5	℃
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I_F(Peak)	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	Iv	----	4.5	----	mcd	I_F=2mA
			11.00	24.0	----		I_F=10mA
	Per decimal point		----	1.4	----	mcd	
			2.8	6.0	----		I_F=10mA
Peak Wavelength		λp	----	632	----	nm	I_F=20mA
Dominant Wavelength		λd	----	624	----	nm	I_F=20mA
Spectrum Radiation Bandwidth		△λ	----	20	----	nm	I_F=20mA
Forward Voltage		V_F	----	2.0	2.4	V	I_F=20mA
Reverse Current		I_R	----	----	100	μA	V_R=5V

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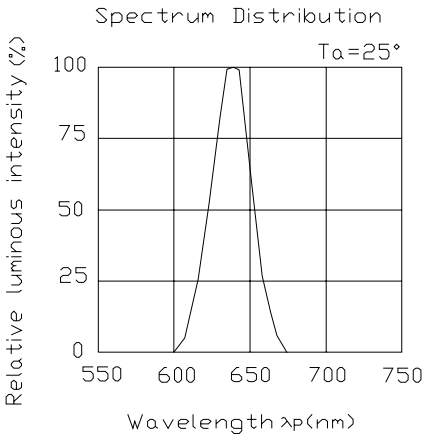
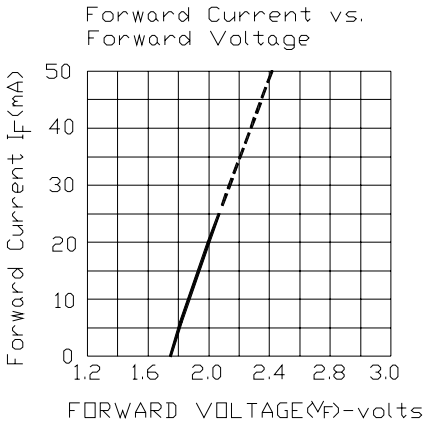
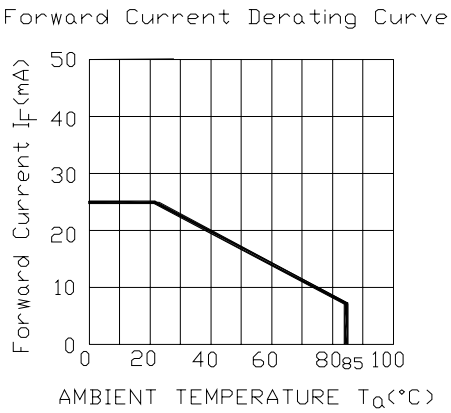
■ **Typical Electro-Optical Characteristic Curves:**

(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℃ ± 5 ℃	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85℃ 30min ∫ 5 min L : -55℃ 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100℃ 5min ∫ 10 sec L : -10℃ 5min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP : 100℃	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55℃	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℃/85% RH	1000 HRS	76 PCS	0/1