



EVERLIGHT ELECTRONICS CO.,LTD.




# DATA SHEET

**PART NO.** : **ELT-512SURWA/S530-A3**

**DATE** : **2004/6/30**

**DEPARTMENT** : **CHR&D1**

**REVISION** : **2**

<b>RECEIVED</b>			
<input checked="" type="checkbox"/> <b>MASS PRODUCTION</b>			
<input type="checkbox"/> <b>PRELIMINARY</b>			
<input type="checkbox"/> <b>CUSTOMER DESIGN</b>			
<b>DEVICE NUMBER :</b> <b>CDDT-512-026</b>			
<b>PAGE :</b> <b>5</b>			
<b>CUSTOMER</b>	<b>DESIGNER</b>	<b>CHECKER</b>	<b>APPROVER</b>
			

2	Revision update and add Pb free	2004/6/30
<b>REV.</b>	<b>DESCRIPTION</b>	<b>RELEASE DATE</b>

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**Technical Data Sheet**  
**0.56" Triple Digit Displays**

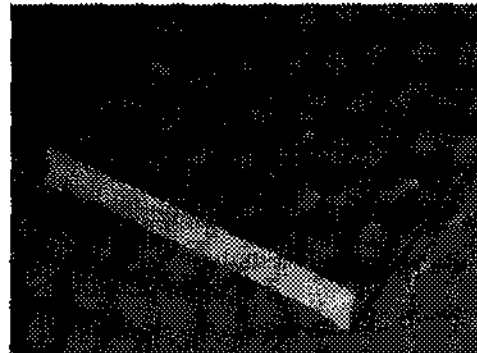
**ELT-512SURWA/S530-A3**

■ **Features :**

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

■ **Descriptions :**

- The ELT-512 series is a large 14.22 mm (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

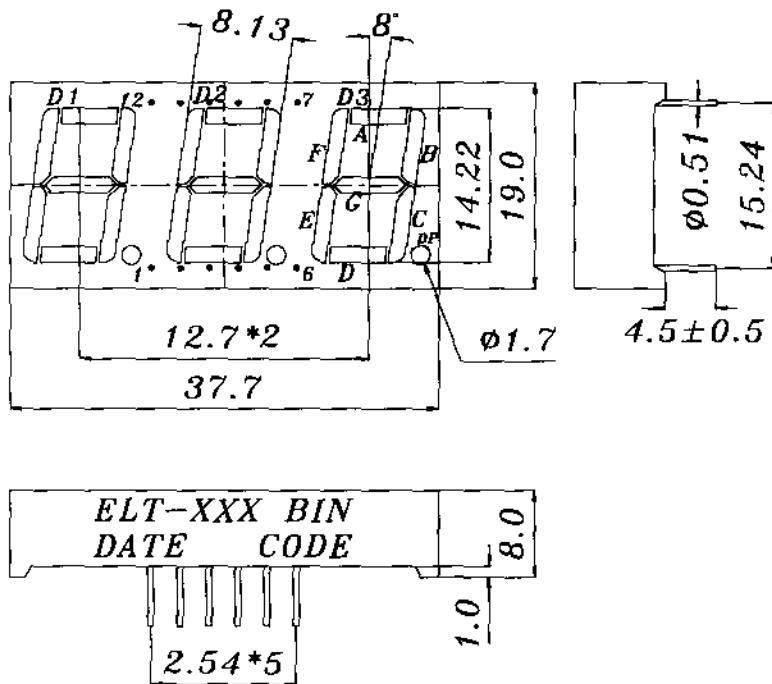
PART NO.	Chip	
	Material	Emitted Color
ELT-512SURWA/S530-A3	AlGaInP	Hyper Red



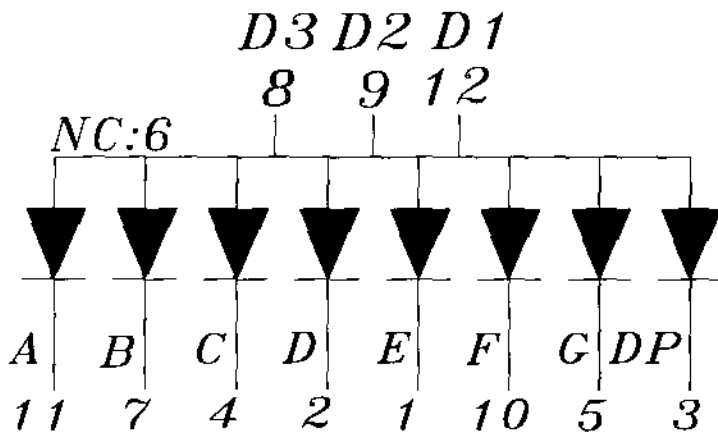
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0.56" Triple Digit Displays

ELT-512SURWA/S530-A3

Package Dimensions



- 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



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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**ELT-512SURWA/S530-A3**

■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	25	mA
Operating Temperature	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	-40 to +100	°C
Soldering Temperature	T <sub>sol</sub>	260 ± 5	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P <sub>d</sub>	60	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I <sub>F(Peak)</sub>	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	I <sub>v</sub>	----	3.5	----	mcd	IF=2mA
			7.80	17.60	----		IF=10mA
	Per decimal point		----	1.0	----	mcd	IF=10mA
			2.5	5.6	----		
Peak Wavelength		λ <sub>p</sub>	----	632	----	nm	IF=20mA
Dominant Wavelength		λ <sub>d</sub>	----	624	----	nm	IF=20mA
Spectrum Radiation Bandwidth		Δλ	----	20	----	nm	IF=20mA
Forward Voltage		V <sub>F</sub>	----	2.0	2.4	V	IF=20mA
Reverse Current		I <sub>R</sub>	----	----	100	μA	VR=5V

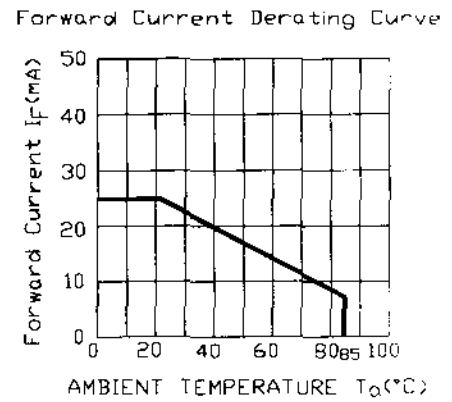
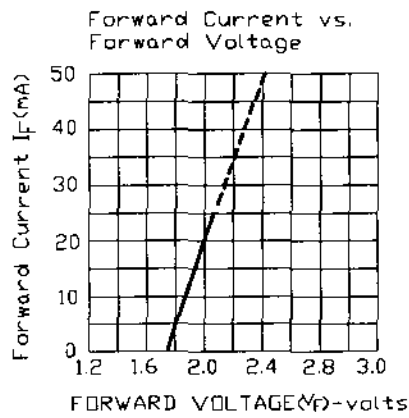
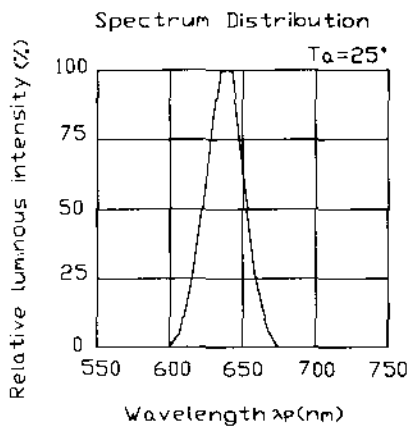


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0.56" Triple Digit Displays

ELT-512SURWA/S530-A3

■ Typical Electro-Optical Characteristic Curves:

(SUR)



**Technical Data Sheet  
0.56" Triple Digit Displays****ELT-512SURWA/S530-A3****■ 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