

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Technical Data Sheet 0.56" Quadruple Digit Displays

#### ELF-512SYGWA/S530-E2

#### Features:

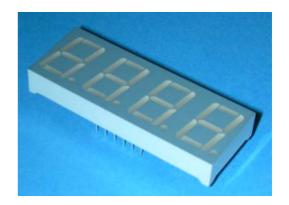
- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.
- Pb free
- The product itself will remain within RoHS compliant version

#### Descriptions:

- The ELF-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		
PART NO.	Material	Emitted Color	
ELF-512SYGWA/S530-E2	AlGaInP	Super Yellow Green	

CG0508060 61064352

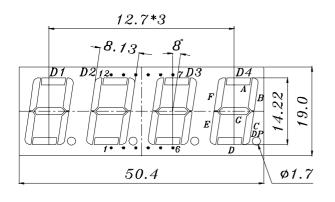
EVERLIGHT ELECTRONICS CO.,LTD. http://www.everlight.com Rev.: 1 Page: 1 of 6
Device Number: CDDF-512-036 Prepared date:2005/08/24 Prepared by: YanLi Zhong

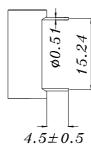


# Technical Data Sheet 0.56" Quadruple Digit Displays

#### ELF-512SYGWA/S530-E2

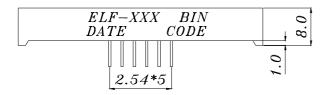
#### Package Dimensions

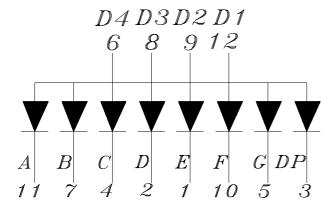




COMMON ANODE

- 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 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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## Technical Data Sheet 0.56" Quadruple Digit Displays

#### ELF-512SYGWA/S530-E2

#### Absolute maximum ratings at $Ta = 25^{\circ}C$ :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	IF	25	mA
Operating Temperature	Topr	-40 to +85	$^{\circ}\!\mathbb{C}$
Storage Temperature	Tstg	-40 to +100	$^{\circ}\!\mathbb{C}$
Soldering Temperature *	Tsol	260 ± 5	$^{\circ}\!\mathbb{C}$
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	mW

Note: \*Soldering time  $\leq$  5 seconds.

#### Electronic optical characteristics:

Parameter		Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity	Per segment	Iv		1.2		mcd	IF=2mA
			2.8	4.5		mcd	IF=10mA
	Per decimal point			0.3		mcd	IF=2mA
			0.7	1.2		mcd	IF=10mA
Peak Wavelength		λp		575		nm	IF=20mA
Dominant Wavelength		λd		573		nm	IF=20mA
Spectrum Radiation Bandwidth		Δλ		20		nm	IF=20mA
Forward Voltage		VF		2.0	2.4	V	IF=20mA
Reverse Current		Ir			100	μΑ	VR=5V

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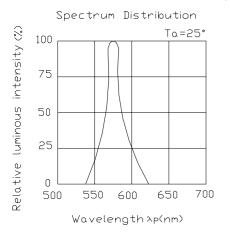


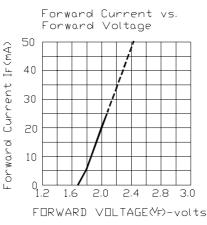
## Technical Data Sheet 0.56" Quadruple Digit Displays

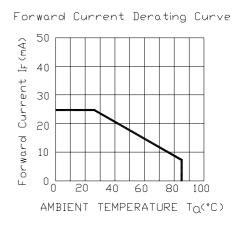
#### ELF-512SYGWA/S530-E2

Typical Electro-Optical Characteristic Curves:

### CHIP Material:AlGaInP Emitted Color:Super Yellow Green







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## Technical Data Sheet 0.56" Quadruple Digit Displays

#### ELF-512SYGWA/S530-E2

#### Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below.

Confidence level: 97%

LTPD: 3%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Solder Heat	TEMP: 260°C ± 5 °C	5 SEC	76 PCS		0/1
2	Temperature Cycle	$H: +85^{\circ}\mathbb{C}$ 30min $\int 5 \text{ min}$ $L: -55^{\circ}\mathbb{C}$ 30min	50 CYCLE	76 PCS		0/1
3	Thermal Shock	$H: +100^{\circ}C$ 5min $\int 10 \sec L: -10^{\circ}C$ 5min	50 CYCLE	76 PCS	Iv≦Ivt*0.5	0/1
4	High Temperature Storage	TEMP: 100°C	1000 HRS	76 PCS	or Vf≧U or	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	Vf≦L	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

Note: Ivt: The test Iv value of the chip before the reliablility test

Iv: The test value of the chip that has completed the reliablility test

U: Upper Specification LimitL: Lower Specification Limit

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## Technical Data Sheet 0.56" Quadruple Digit Displays

#### ELF-512SYGWA/S530-E2

#### Packing Quantity Specification

1.10PCS/tube, 54 tubes/box

2.4Boxes/Carton

Label Form Specification

EVERLIGHT

CPN: P/N:

F512SYGWA/S530-E2

QTY:

LOT NO:

HUE:

REF:

CAT:

MADE IN CHINA

CPN: Customer's Production Number

P/N: Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak Wavelength

REF: Reference

LOT No: Lot Number

MADE IN CHINA: Production Place

#### Notes:

- 1. 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' sconsent.

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