



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-105-013 REV: 1.0

1.0" Single Digit Displays

MODEL NO : ELS-1005SURWA/S530-A2 ECN : Page: 1/5

■ Features :

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

■ Applications:

- Audio equipment
- Instrument panels
- Digital read out display

■ Description :

- The ELS-1005 series is a large 25.4mm (1.0")high seven segment display design for viewing distances up to 7 meters.
- These displays provide excellent reliability in bright ambient light .
- These device is made with white segments and gray surface.

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELS-1005SURWA/S530-A2	AlGaInP	Hyper Red	C.C.

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL : 886-2-2267-2000,2267-9936

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

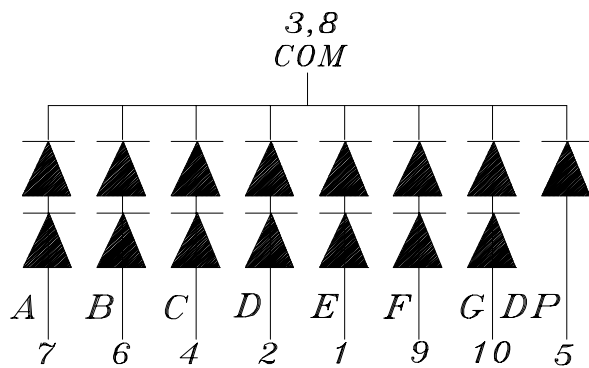
<http://www.everlight.com>



REV: 1.0

ECN : _____

Page: 2/5



- 1.All dimensions are 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	T _{opr}	-40 to +85	℃
Storage Temperature	T _{stg}	-40 to +100	℃
Soldering Temperature	T _{sol}	260 ± 5	℃
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P _d	120	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _f (Peak)	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous	Per segment	I _v	1.4	4.3	----	mcd	I _f =2mA
			11.00	28.5	----	mcd	I _f =10mA
Intensity	Per decimal point		0.75	3.2	----	mcd	I _f =2mA
			5.60	11.00	----	mcd	I _f =10mA
Peak Wavelength		λ _p	----	632	----	nm	I _f =20mA
Dominant Wavelength		λ _d	----	624	----	nm	I _f =20mA
Spectrum Radiation Bandwidth		△λ	----	20	----	nm	I _f =20mA
Forward Voltage	Per segment	V _f	----	4.0	4.8	V	I _f =20mA
	Per decimal point		----	2.0	2.4	V	I _f =20mA
Reverse Current		I _r	----	----	10	μA	V _r =5V



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■ Reliability test item and condition:

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

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Typical Electro-Optical Characteristic Curves:

