



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-816-016 REV: 1.0

0.8" Single Digit Displays

MODEL NO : ELS-816SDRWA/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-816 series is a large 20.4mm
(0.8")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-816SDRWA/S530-A2	AlGaInP	Super Deep-Red	C.A.

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

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3, 5, 11, 16
COM

A B C D E F G LDP RDP

1 14 12 10 4 2 13 6 9

NP:7, 8, 15

- 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	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	Per segment	I _v	1.05	2.1	----	mcd	If=2mA
			7.80	14.1	----	mcd	If=10mA
Intensity	Per decimal point		0.45	0.75	----	mcd	If=2mA
			2.80	7.80	----	mcd	If=10mA
Peak Wavelength		λ p	----	650	----	nm	If=20mA
Dominant Wavelength		λ d	----	639	----	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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■ 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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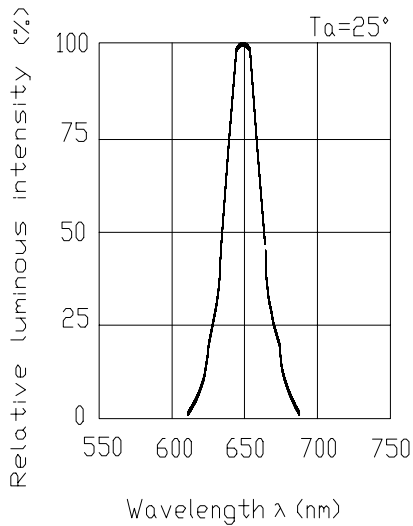
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Typical Electro-Optical Characteristic Curves:

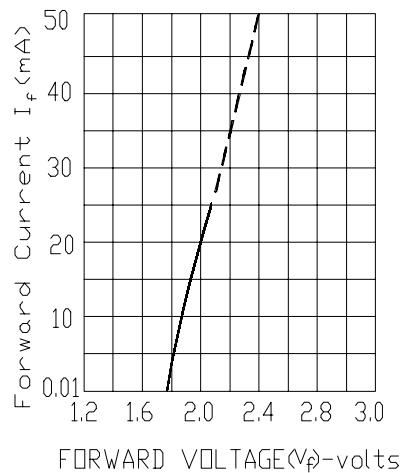
SDR

Spectrum Distribution

T_a=25°



Forward Current vs. Forward Voltage



Forward Current Derating Curve

T_a=25°

