



Device Number : DDS-405-001 REV: 1.1

4.0" Single Digit Displays

MODEL NO : ELS-4005EWA 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-4005series is a large 101.2mm (4.0")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-4005EWA	GaAsP/GaP	Orange	C.C.

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<http://www.everlight.com>



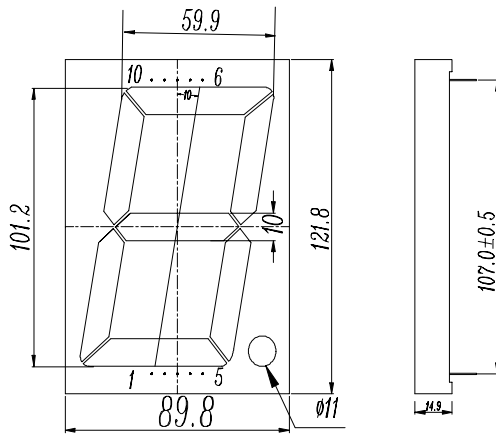
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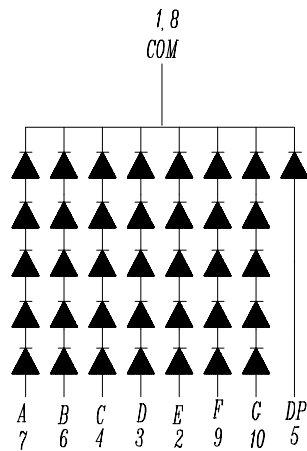
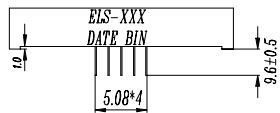
4.0" Single Digit Displays

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Package Dimension:



- COMMON CATHODE
- 1 COMMON CATHODE
 - 2 ANODE E
 - 3 ANODE D
 - 4 ANODE C
 - 5 ANODE DP
 - 6 ANODE B
 - 7 ANODE A
 - 8 COMMON CATHODE
 - 9 ANODE F
 - 10 ANODE C



NOTES:

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°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	30	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	500	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	Per segment	Iv	2.80	5.4	----	mcd	If=10mA
	Per decimal point		0.45	1.05	----	mcd	If=10mA
Peak Wavelength		λp	----	635	----	nm	If=20mA
Dominant Wavelength		λd	----	625	----	nm	If=20mA
Spectrum Radiation Bandwidth		$\Delta \lambda$	----	45	----	nm	If=20mA
Forward Voltage	Per segment	Vf	8.5	10.0	13.0	V	If=20mA
	Per decimal point		1.7	2.0	2.6	V	If=20mA
Reverse Current		Ir	----	----	10	μA	Vr=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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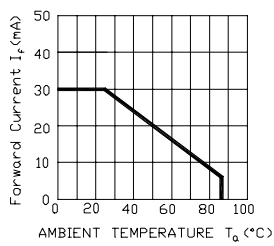
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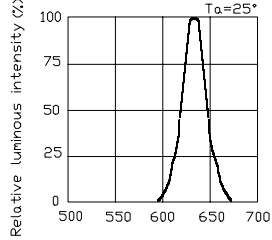
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Typical Electro-Optical Characteristic Curves:

Forward Current Derating Curve



Spectrum Distribution



Per decimal point

Per segment

Forward Current vs. Forward Voltage

