



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-180-006 REV: 1.0

## 1.8" Single Digit Display

MODEL NO : ELS-1805YWB ECN :                      Page: 1/5

### ■ Features :

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

### ■ Applications:

- Audio equipment
- Instrument panels
- Digital readout display

### ■ Description :

- The ELS-1805series is a large 44.8mm (1.8")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 black surface.

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELS-1805YWB	GaP	Yellow	C.C.

DESIGNER	CHECKER	APPROVER

Office :NO.25,Lane 76,Chung Rd,Sec.3

Tucheng, TaiPei 236,Taiwan,R.o.C.

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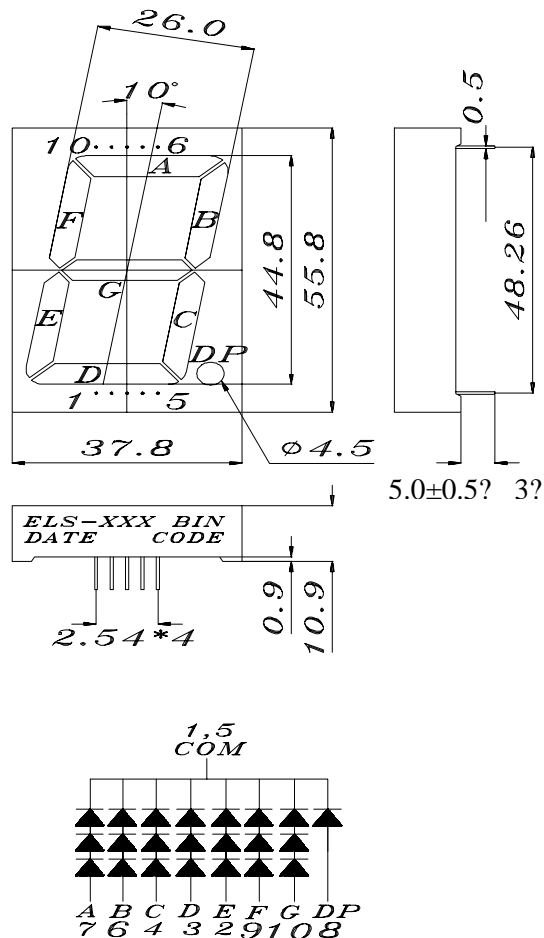


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### Package Dimension:



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

### 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	V <sub>r</sub>	5	V
Forward Current	I <sub>f</sub>	20	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
Power Dissipation	P <sub>d</sub>	255	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I <sub>f</sub> (Peak)	160	mA

### ■ Electronic optical characteristics :

Parameter		Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	Per segment	I <sub>v</sub>	2.8	4.0	----	mcd	I <sub>f</sub> =10mA
	Per decimal point		0.45	0.75	----		
Peak Wavelength		λ <sub>p</sub>	----	585	----	nm	I <sub>f</sub> =20mA
Dominant Wavelength		λ <sub>d</sub>	----	590	----	nm	I <sub>f</sub> =20mA
Spectrum Radiation Bandwidth		△λ	----	35	----	nm	I <sub>f</sub> =20mA
Forward Voltage	Per segment	V <sub>f</sub>	5.1	6.0	7.8	V	I <sub>f</sub> =20mA
	Per decimal point		1.7	2.0	2.6		
Reverse Current		I <sub>r</sub>	----	----	10	μA	V <sub>r</sub> =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 = 20 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:

