



1.8" Single Digit Displays

PART NO. : ELS-1806EWA ECN : Page: 1/5

■ Features :

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

■ Applications:

- Audio equipment
- Instrument panels
- Digital read out display

■ Descriptions :

- The ELS-1806 series is a large 44.8 mm (1.8")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.

PART NO.	Chip	
	Material	Emitted Color
ELS-1806EWA	GaAsP/GaP	Orange

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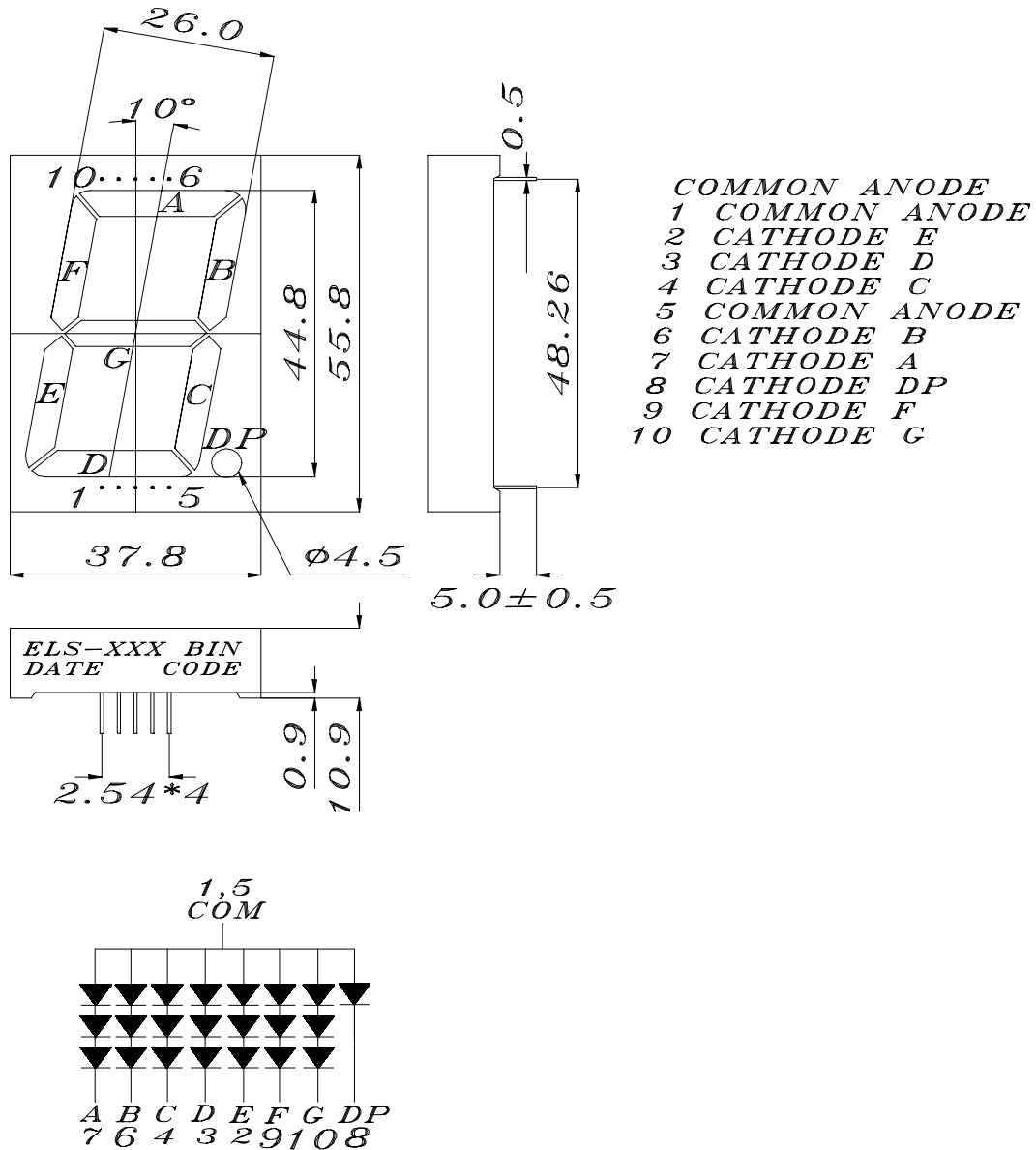
<http://www.everlight.com>



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PART NO. : ELS-1806EWA ECN : Page: 2/5

■ Package Dimensions:



■ 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.



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-180-002 REV: 1.1

1.8" Single Digit Displays

PART NO. : ELS-1806EWA ECN : Page: 3/5

■ 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	100	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	4.0	6.4	----	mcd	IF=10mA
	Per decimal point		1.2	2.1	----		
Peak Wavelength		λ p	----	635	----	nm	IF=20mA
Dominant Wavelength		λ d	----	625	----	nm	IF=20mA
Spectrum Radiation Bandwidth		△ λ	----	45	----	nm	IF=20mA
Forward Voltage		VF	5.1	6.0	7.2	V	IF=20mA
Reverse Current		IR	----	----	10	μ A	VR=5V



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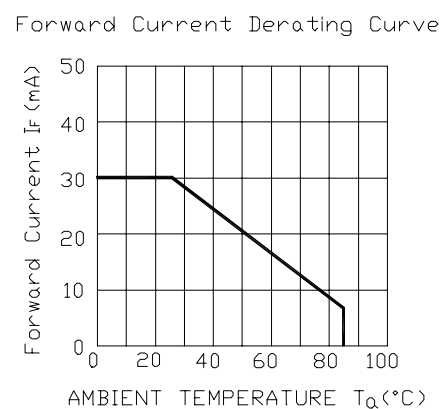
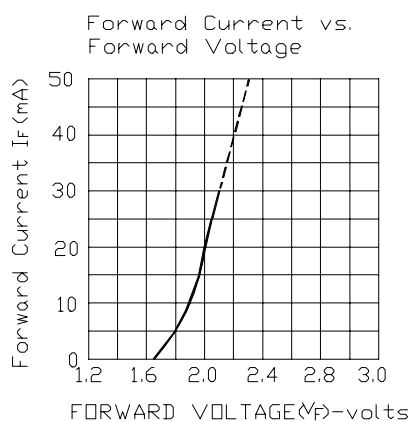
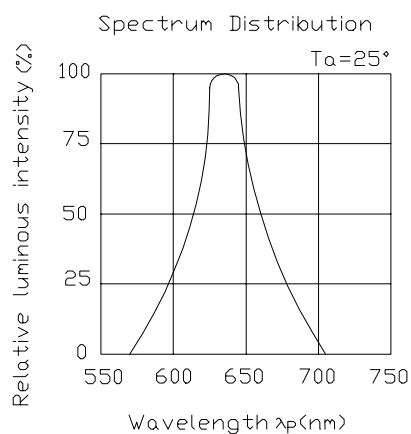
PART NO. : ELS-1806EWA

ECN :

Page: 4/5

Typical Electro-Optical Characteristic Curves:

CHIP Material:GaAsP/GaP
Emitted Color:Hi-Eff Red/Orange





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Device Number : DDS-180-002 REV: 1.1

1.8" Single Digit Displays

PART NO.: ELS-1806EWA ECN: Page: 5/5

■ Reliability test items and conditions:

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