



0.43" Single Digit Displays

PART NO. : ELS-422HWB 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-422 series is a large 10.8 mm (0.43") 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 black surface.

PART NO.	Chip	
	Material	Emitted Color
ELS-422HWB	GaP	Bright Red

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<http://www.everlight.com>

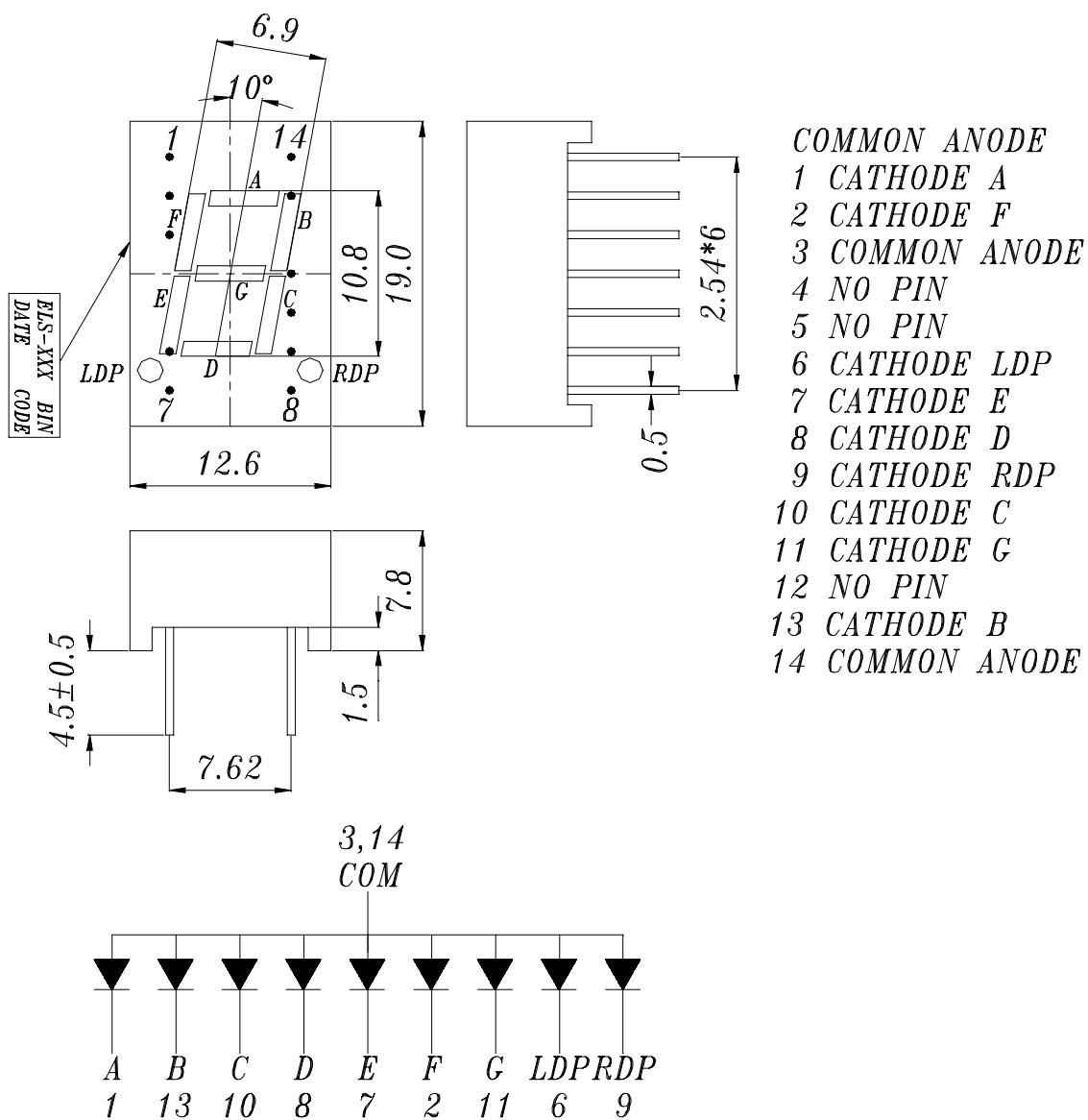
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■ Package Dimensions:



■ 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.



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■ Absolute maximum ratings at $T_a = 25^\circ C$:

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	15	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	45	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	IF(Peak)	50	mA

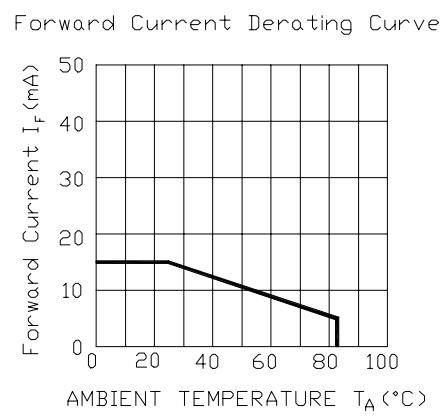
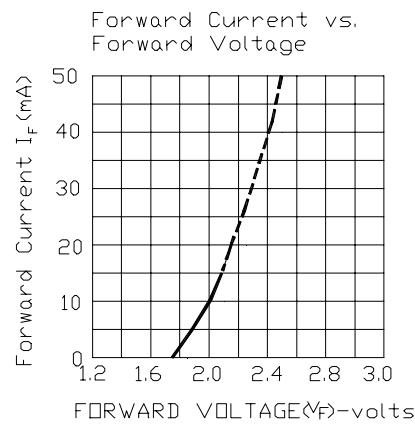
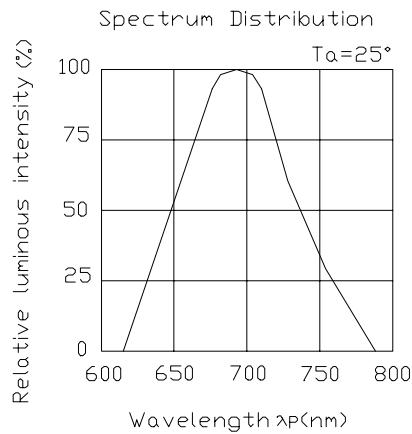
■ Electronic optical characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	Iv	0.3	0.50	----	mcd
	Per decimal point		0.11	0.18	----	
Peak Wavelength	λ_p	----	697	----	nm	IF=10mA
Dominant Wavelength	λ_d	----	650	----	nm	IF=10mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	----	90	----	nm	IF=10mA
Forward Voltage	VF	1.5	2.0	2.4	V	IF=10mA
Reverse Current	IR	----	----	10	μA	VR=5V

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■ Typical Electro-Optical Characteristic Curves:

CHIP Material:Gap
Emitted Color:Bright Red



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-422-005 REV: 1.1

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■ 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