



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-315-005 REV: 1.1

0.36" Single Digit Displays

PART NO. : ELS-315HDR 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-315 series is a large 9.14mm (0.36")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 red segments and red surface.

PART NO.	Chip	
	Material	Emitted Color
ELS-315HDR	GaP	Bright Red

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL : 886-2-2267-2000,2267-9936

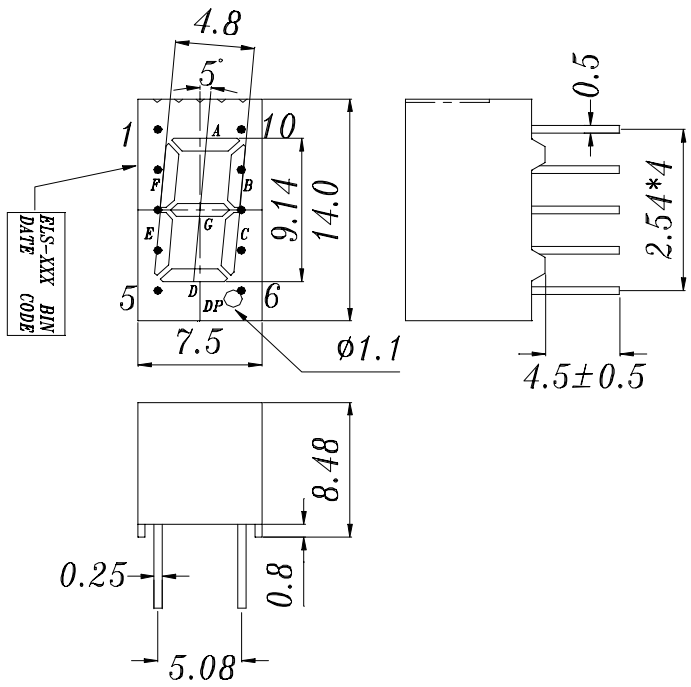
FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

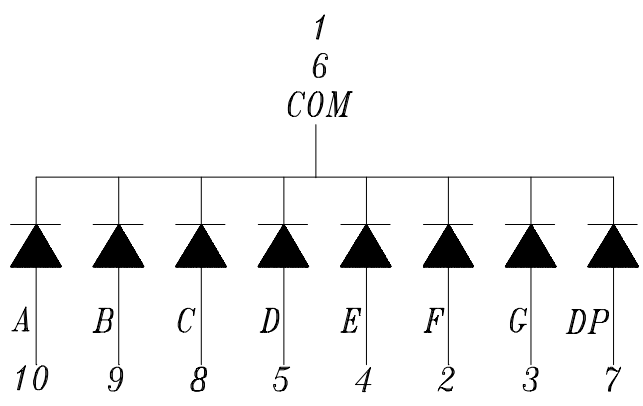


0.36" Single Digit Displays

■ Package Dimensions:



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



■ 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 Ta = 25°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	0.18	0.3	----	mcd	IF=10mA
	Per decimal point		0.05	0.15	----		
Peak Wavelength		λ p	----	697	----	nm	IF=10mA
Dominant Wavelength		λ d	----	650	----	nm	IF=10mA
Spectrum Radiation Bandwidth		△ λ	----	90	----	nm	IF=10mA
Forward Voltage		VF	1.5	2.0	2.4	V	IF=10mA
Reverse Current		IR	----	----	10	μ A	VR=5V



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ECN :

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■ Typical Electro-Optical Characteristic Curves:

CHIP Material:Gap
Emitted Color:Bright Red

Spectrum Distribution
Ta=25°

Wavelength λp (nm)	Relative luminous intensity (%)
600	0
650	50
680	100
700	90
750	30
800	0

Forward Current vs. Forward Voltage

FORWARD VOLTAGE (V)-volts	Forward Current If (mA)
1.8	0
2.0	10
2.2	25
2.4	50

Forward Current Derating Curve

AMBIENT TEMPERATURE TA (°C)	Forward Current If (mA)
0	15
25	15
50	10
75	5
85	0



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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

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