

Device Number: DDS-321-001 REV: 1.1

0.3" Single Digit Display

MODEL NO: ELS-321HDB ECN: Page: 1/5

Features:

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

Descriptions:

- The ELS-321series is a large 7.62mm (0.3")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 red segments and black surface.

Applications:

- Audio equipment
- Instrument panels
- Digital read out display

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELS-321HDB	GaP	Bright Red	C.C.

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



Device Number: DDS-321-001 REV: 1.1

0.3" Single Digit Display

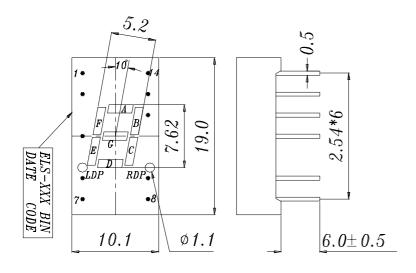
MODEL NO: ELS-321HDB

ECN:

Page:

2/5

■ Package Dimensions:



COMMON CATHODE

1 ANODE F

 $2 \text{ ANODE} \qquad G$

3 NO PIN

4 COMMON CATHODE

5 NO PIN

6 ANODE E

7 ANODE D

8 ANODE C

9 ANODE RDP

10 NO PIN

11 NO PIN

12 COMMON CATHODE

13 ANODE B

14 ANODE A

				12			
NP:3	3,5,	10,1	1				
+	+	+	+	+	+	+	+
1	$\stackrel{\angle}{R}$		n			C	\overrightarrow{D}
A 1 1	D 12	٥	u		$\begin{bmatrix} I \\ I \end{bmatrix}$	$\frac{\sigma_{1}}{2}$	D_{μ}
14	13	ď	7	b	1	2	\boldsymbol{g}

7.62

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.



Device Number: DDS-321-001 REV: 1.1

0.3" Single Digit Display

MODEL NO: ELS-321HDB ECN: Page: 3/5

■ Absolute maximum ratings at $Ta = 25^{\circ}C$:

-			
Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	15	mA
Operating Temperature	Topr	-40 to +85	$^{\circ}\!\mathbb{C}$
Storage Temperature	Tstg	-40 to +100	$^{\circ}\mathbb{C}$
Soldering Temperature	Tsol	260 ± 5	$^{\circ}\!\mathbb{C}$
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	0.11	0.3		mcd	If=10mA
	Per decimal point		0.04	0.10		mcd	If=10mA
Peak Wave	Peak Wavelength			697		nm	If=10mA
Dominant W	Dominant Wavelength			650		nm	If=10mA
Spectrum Rediation Bandwidth		Δλ		90		nm	If=10mA
Forward Voltage		Vf	1.5	2.0	2.4	V	If=10mA
Reverse Current		Ir			10	μ A	Vr=5V



Device Number: DDS-321-001	REV:	1.1
----------------------------	------	-----

0.3" Single Digit Display

MODEL NO: ELS-321HDB ECN: Page: 4/5

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 $\int 5 \text{ min}$ L: -55°C 30min	50 CYCLE	76 PCS	0/1	
3	Thermal Shock	H: +100°C 5min \int 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	
7		85°C/85% RH	1000 HRS	76 PCS	(



Device Number: DDS-321-001 REV: 1.1

0.3" Single Digit Display

MODEL NO: ELS-321HDB ECN: Page: 5/5

Typical Electro-Optical Characteristic Curves:

