



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number :

DDM-701-001

REV:

1.2

0.7" 5\*7 Dot Matrix Displays

PART NO. : ELM-701IDB ECN : \_\_\_\_\_ Page: 1/5

■ Features :

- Large emitting dot 0.079" diameter.
- Low power/high brightness.

■ Applications:

- Instrument panels
- Digital read out display

■ Descriptions :

- The ELM-701 series is a large emitting area(2.0mm diameter)LED sources configured in a 35 dots 5\*7 matrix array.
- These devices are made with red dots and black surface.

PART NO.	Chip	
	Material	Emitted Color
ELM-701IDB	GaAsP/GaP	Hi-Eff 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

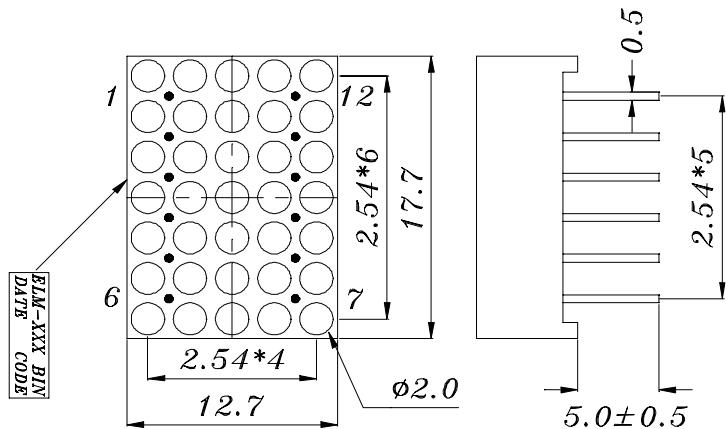
FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

## 0.7" 5\*7 Dot Matrix Displays

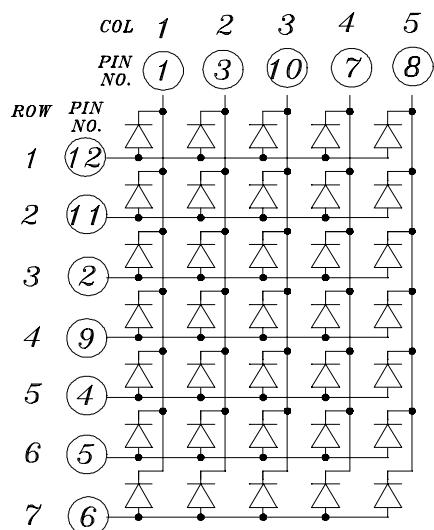
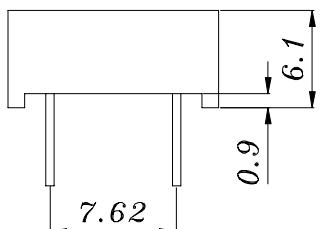
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## ■ Package Dimensions:



*CATHODE COLUMN  
ANODE ROW*

1	CATHODE COLUMN	1
2	ANODE ROW	3
3	CATHODE COLUMN	2
4	ANODE ROW	5
5	ANODE ROW	6
6	ANODE ROW	7
7	CATHODE COLUMN	4
8	CATHODE COLUMN	5
9	ANODE ROW	4
10	CATHODE COLUMN	3
11	ANODE ROW	2
12	ANODE ROW	1



## ■ 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	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 :

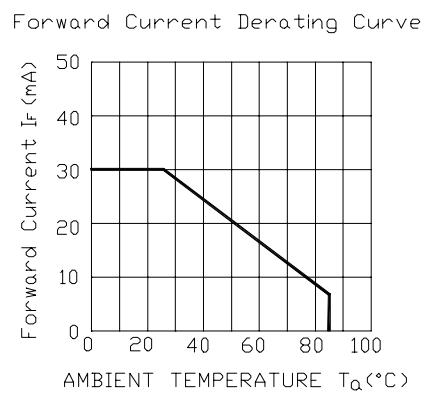
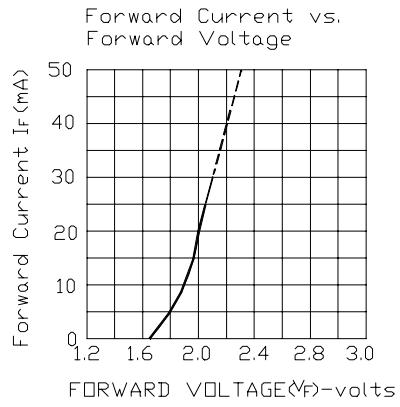
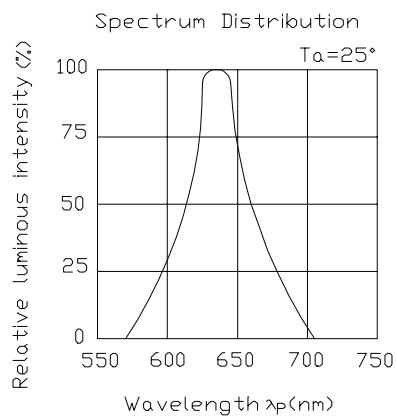
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	1.45	2.20	----	mcd	IF=10mA
Peak Wavelength	λ p	----	635	----	nm	IF=20mA
Dominant Wavelength	λ d	----	625	----	nm	IF=20mA
Spectrum Radiation Bandwidth	△ λ	----	45	----	nm	IF=20mA
Forward Voltage	VF	1.7	2.0	2.4	V	IF=20mA
Reverse Current	IR	----	----	10	μ A	VR=5V

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0.7" 5\*7 Dot Matrix Displays

PART NO. : ELM-701IDB ECN :    Page: 4/5**■ Typical Electro-Optical Characteristic Curves:**

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





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## ■ Reliability test items and conditions:

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : $+85^{\circ}\text{C}$ 30min ↓ 5 min L : $-55^{\circ}\text{C}$ 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : $+100^{\circ}\text{C}$ 5min ↓ 10 sec L : $-10^{\circ}\text{C}$ 5min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP : $100^{\circ}\text{C}$	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : $-55^{\circ}\text{C}$	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