



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-408-001 REV: 1.0

4.6" 5*8 Multicolor Dot Matrix Displays

MODEL NO : ELM-4081EGWA ECN : Page: 1/5

■ Features :

- Large emitting dot 0.39" diameter.
- Low power/high brightness.

■ Applications:

- Instrument panels
- Digital read out display

■ Descriptions :

- The ELM-4081 series is a large emitting area(10.0mm diameter)LED sources configured in a 40 dots 5*8 matrix array.
- These devices are made with white dots and gray surface.

PART NO		Chip	
		Material	Emitted Color
ELM-4081EGWA	E	GaAsP/GaP	Orange
	G	GaP	Green

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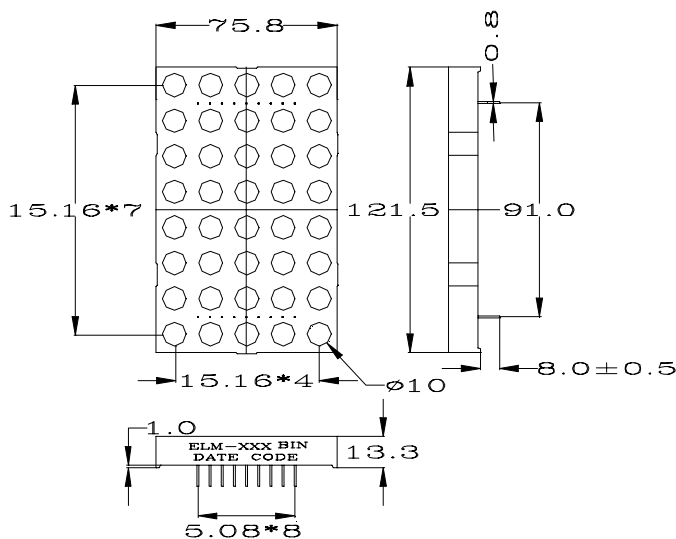
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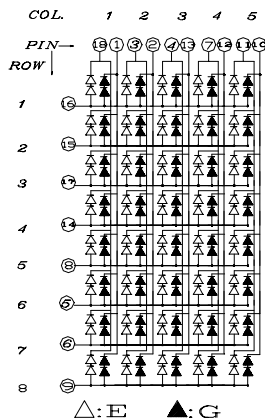
4.6" 5*8 Mult-Color Dot Matrix Displays

MODEL NO : ELM-4081EGWA ECN : Page: 2/5

■ Package Dimensions:



CATHODE COLUMN
ANODE ROW
1 CATHODE COLUMN 1 (G)
2 CATHODE COLUMN 2 (G)
3 CATHODE COLUMN 2 (E)
4 CATHODE COLUMN 3 (E)
5 ANODE ROW 6
6 ANODE ROW 7
7 CATHODE COLUMN 4 (E)
8 ANODE ROW 5
9 ANODE ROW 8
10 CATHODE COLUMN 5 (G)
11 CATHODE COLUMN 5 (E)
12 CATHODE COLUMN 4 (G)
13 CATHODE COLUMN 3 (G)
14 ANODE ROW 4
15 ANODE ROW 2
16 ANODE ROW 1
17 ANODE ROW 3
18 CATHODE COLUMN 1 (E)



■ 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	V _r	5	V
Forward Current	I _f	30	mA
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +100	°C
Soldering Temperature	T _{sol}	260 ± 5	°C
Power Dissipation	P _d	200	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _f (Peak)	160	mA

■ Electronic optical characteristics :

Parameter	Symbol		MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	I _v	E	5.6	8.9	----	mcd	I _f =10mA
		G	7.8	12.5	----		
Peak Wavelength	λ _p	E	----	635	----	nm	I _f =20mA
		G	----	565	----		
Dominant Wavelength	λ _d	E	----	625	----	nm	I _f =20mA
		G	----	570	----		
Spectrum Radiation Bandwidth	△λ	E	----	45	----	nm	I _f =20mA
		G	----	30	----		
Forward Voltage	V _f	E	3.4	4.0	4.8	V	I _f =20mA
		G	3.4	4.2	4.8		
Reverse Current	I _r		----	----	10	μA	V _r =5V



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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℃ ± 5℃	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85℃ 30min └ 5 min L : -55℃ 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100℃ 5min └ 10 sec L : -10℃ 5min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP : 100℃	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55℃	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℃/85% RH	1000 HRS	76 PCS	0/1



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MODEL NO: ELM-4081EGWA ECN: Page: 5/5

■ Typical Electro-Optical Characteristic Curves:

