



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-181-002 REV: 1.2

1.4" 5*8 Dot Matrix Displays

MODEL NO : ELM-1081EWA ECN : Page: 1/5

■ Features :

- Large emitting dot 0.12" diameter.
- Low power/high brightness.

■ Applications:

- Instrument panels
- Digital read out display

■ Descriptions :

- The ELM-1081 series is a large emitting area(3.0mm 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		C.C. or C.A.
	Material	Emitted Color	
ELM-1081EWA	GaAsP/GaP	Orange	C.C.

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<http://www.everlight.com>

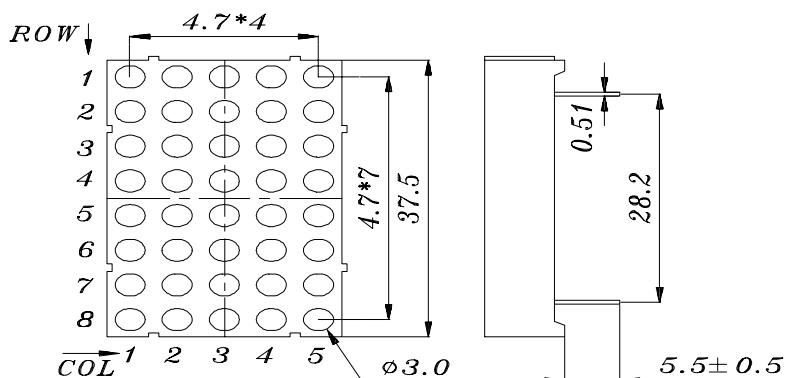


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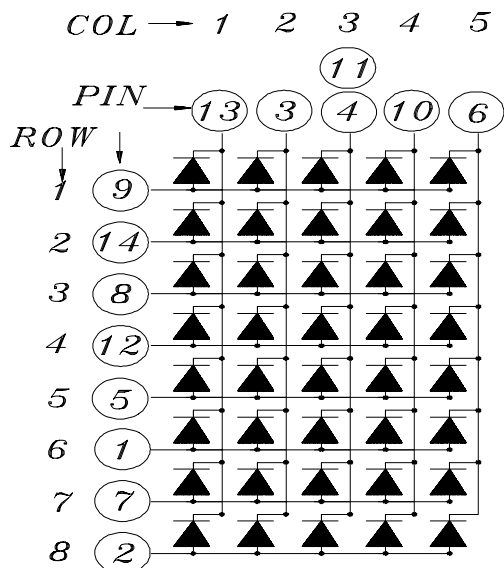
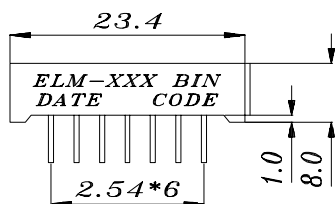
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Package Dimensions:



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



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	2.0	3.8	----	mcd	If=10mA
Peak Wavelength	λ_p	----	635	----	nm	If=20mA
Dominant Wavelength	λ_d	----	625	----	nm	If=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	----	45	----	nm	If=20mA
Forward Voltage	Vf	1.7	2.0	2.4	V	If=20mA
Reverse Current	Ir	----	----	10	μA	Vr=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°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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■ Typical Electro-Optical Characteristic Curves:

