EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-208-002 REV: 1.2

2.3" 5*8 Dot Matrix Displays

MODEL NO ELM-2081EWA ECN : Page: 1/5

■ Features :

- Large emitting dot 0.2" diameter.
- Low power/high brightness.

■ Applications:

- Instrument panels
- Digital read out display

■ Descriptions :

- The ELM-2081 series are a large emitting area(5.0mm diameter)LED sources configured in a 40 dots 5*8 matrix array.
- These device is made with white dots and gray surface.

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELM-2081EWA	GaAsP/GaP	Orange	C.C.

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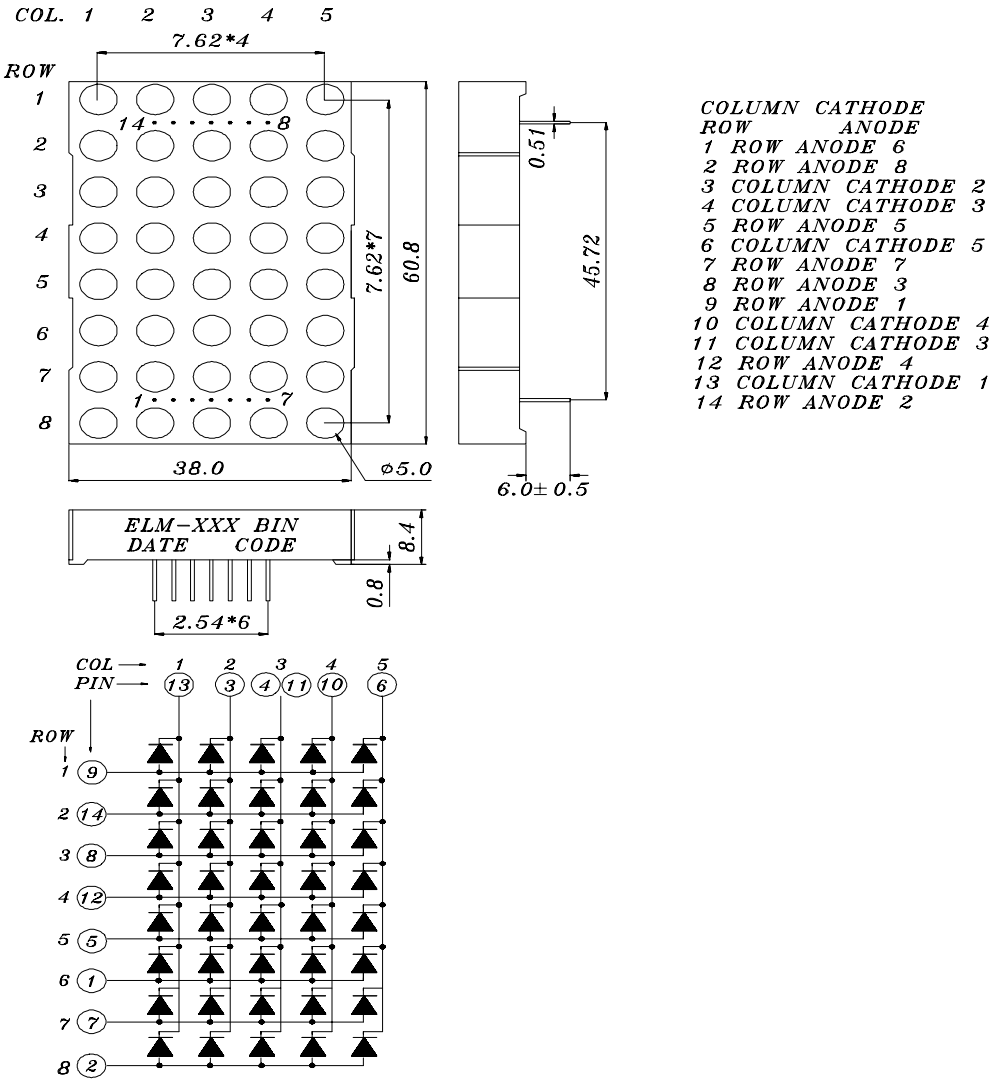
■ Package Dimensions:



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.

2.3" 5*8 Dot Matrix Displays

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■ Absolute maximum ratings at Ta = 25℃ :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	30	mA
Operating Temperature	Topr	-40 to +85	℃
Storage Temperature	Tstg	-40 to +100	℃
Soldering Temperature	Tsol	260 ± 5	℃
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	2.8	5.3	----	mcd	If=10mA
Peak Wavelength	λ p	----	635	----	nm	If=20mA
Dominant Wavelength	λ d	----	625	----	nm	If=20mA
Spectrum Rediation Bandwidth	△ λ	----	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 item and condition:

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

Typical Electro-Optical Characteristic Curves:

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