



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-208-018 REV: 1.0

2.3" 5*8 Dot Matrix Display

MODEL NO : ELM-2081YWA ECN : Page: 1/4

■ Features :

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

■ Description :

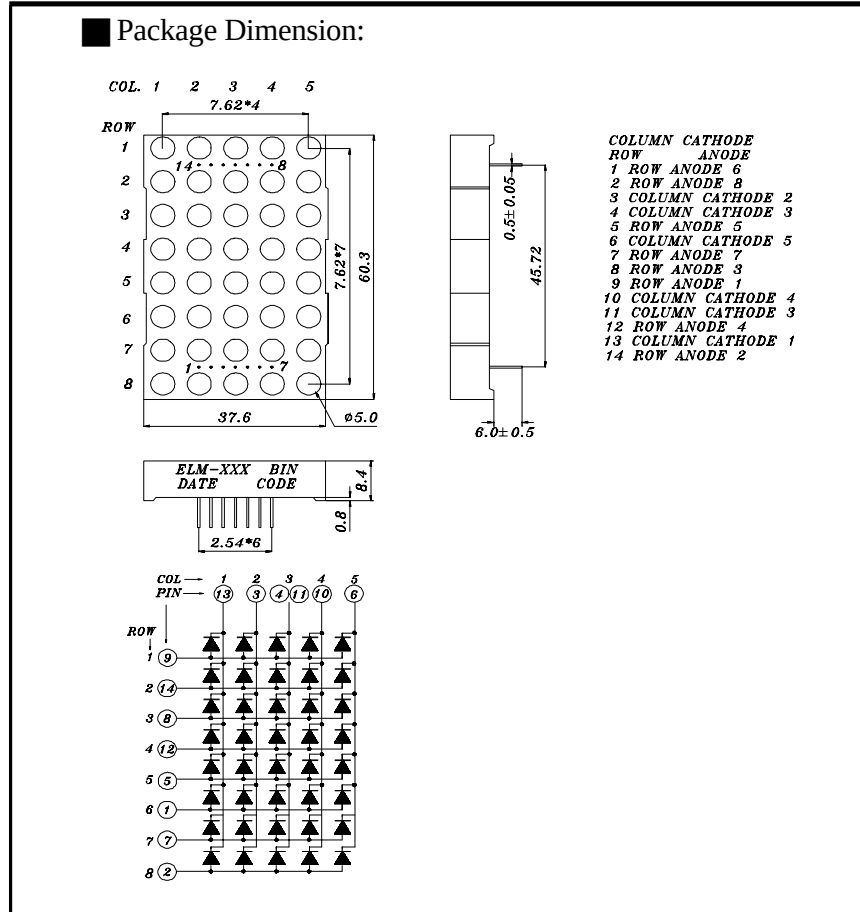
- The ELM-2081 series are a large emitting area (5.0mm diameter) LED sources configured in a 40 dots 5*8 matrix array.
- These device is made with white dots and gray surface.

■ Applications:

- Instrument panels
- Digital readout display

■ NOTES:

1. All dimensions are 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 .



PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELM-2081YWA	GaAsP	Yellow	C.C.

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■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	20	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	85	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	1.05	1.50	----	mcd	If=10mA
Peak Wavelength	λ_p	----	585	----	nm	If=20mA
Dominant Wavelength	λ_d	----	590	----	nm	If=20mA
Spectrum Radiation Bandwidth	$\Delta\lambda$	----	35	----	nm	If=20mA
Forward Voltage	Vf	1.7	2.0	2.6	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 = 20 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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■ Typical Electro-Optical Characteristic Curves:

