



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-200-008 REV: 1.1

2.0" 5*7 Dot Matrix Displays

MODEL NO : ELM-2002GWA ECN : Page: 1/5

■ Features :

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

■ Applications:

- Instrument panels
- Digital read out display

■ Description :

- The ELM-2002 series are a large emitting area(5.0mm diameter)LED sources configured in a 35 dots 5*7 matrix array.
- These device is made with white dots and gray surface.

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELM-2002GWA	GaP	Green	C.A.

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

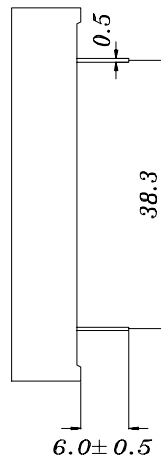
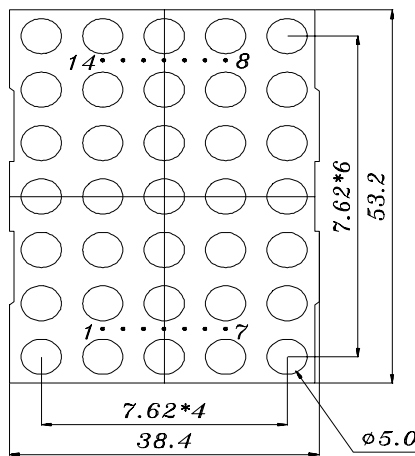
<http://www.everlight.com>



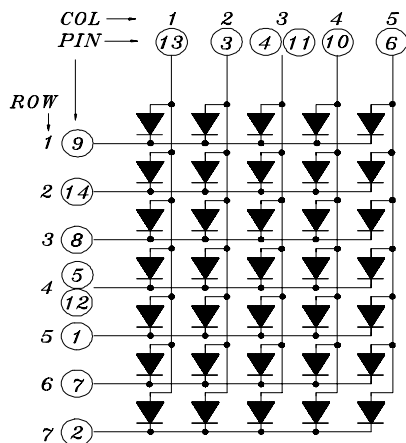
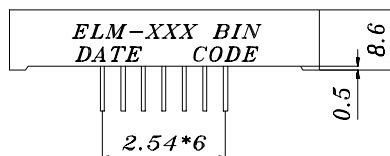
2.0" 5*7 Dot Matrix Displays

MODEL NO : ELM-2002GWA ECN : Page: 2/5

■ Package Dimension:



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



■ 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.



2.0" 5*7 Dot Matrix Displays

MODEL NO : ELM-2002GWA ECN : Page: 3/5

■ 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	2.8	7.2	----	mcd	If=10mA
Peak Wavelength	λ_p	----	565	----	nm	If=20mA
Dominant Wavelength	λ_d	----	570	----	nm	If=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	----	30	----	nm	If=20mA
Forward Voltage	Vf	1.7	2.1	2.4	V	If=20mA
Reverse Current	Ir	----	----	10	μA	Vr=5V



EVERLIGHT ELECTRONICS CO.,LTD.

Device Num DDM-200-008 REV: 1.1

2.0" 5*7 Dot Matrix Displays

MODEL NO : ELM-2002GWA ECN: Page: 4/5

■ Reliability test item and condition:

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





2.0" 5*7 Dot Matrix Displays

MODEL NO: ELM-2002GWA ECN : Page: 5/5

Typical Electro-Optical Characteristic Curves:

G

