



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-102-011 REV: 1.1

1.2" 5*7 Dot Matrix Displays

PART NO. : ELM-1002EWA 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-1002 series is a large emitting area(3.0mm diameter)LED sources configured in a 35 dots 5*7 matrix array.
- These devices are made with white dots and gray surface.

PART NO.	Chip	
	Material	Emitted Color
ELM-1002EWA	GaAsP/GaP	Orange

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL : 886-2-2267-2000,2267-9936

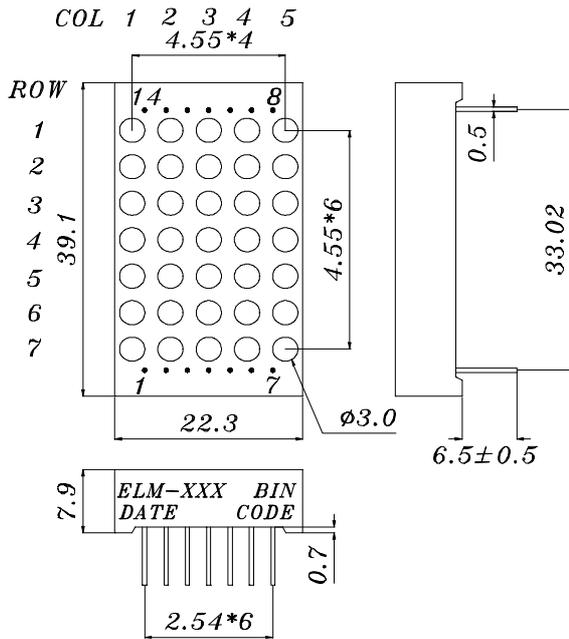
FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

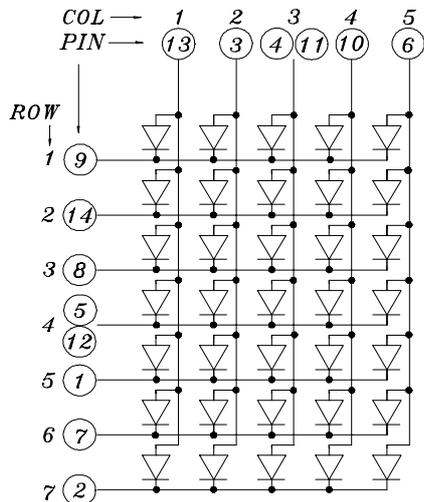


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■ Package Dimensions:



ANODE COLUMN	CATHODE ROW
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 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 :

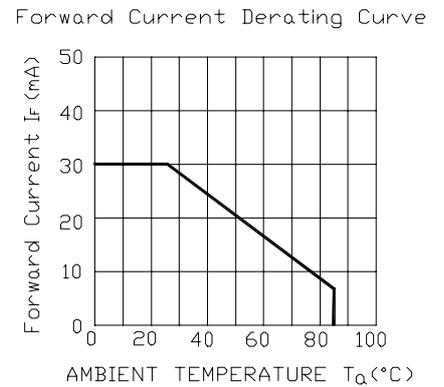
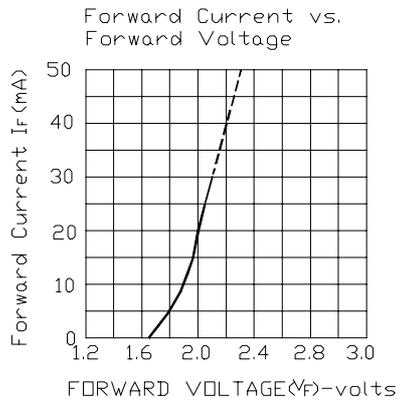
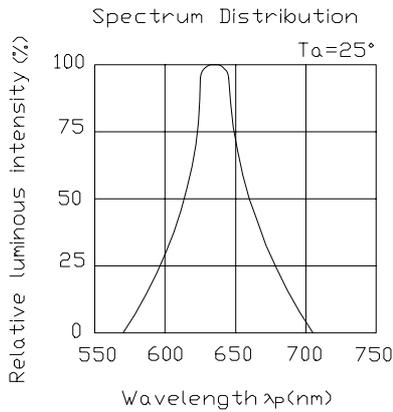
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	2.0	4.5	----	mcd	IF=10mA
Peak Wavelength	λ p	----	635	----	nm	IF=20mA
Dominant Wavelength	λ d	----	625	----	nm	IF=20mA
Spectrum Radiation Bandwidth	△ λ	----	45	----	nm	IF=20mA
Forward Voltage	VF	1.7	2.0	2.4	V	IF=20mA
Reverse Current	IR	----	----	10	μ A	VR=5V



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■ Typical Electro-Optical Characteristic Curves:

CHIP Material:GaAsP/GaP
Emitted Color:Hi-Eff Red/Orange





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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

