



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number :

DDM-200-002

REV:

1.2

2.0" 5*7 Dot Matrix Displays

PART NO. : ELM-2002SRWA/P17 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-2002 series is a large emitting area(5.0mm 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-2002SRWA/P17	GaAlAs	Super Red

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

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

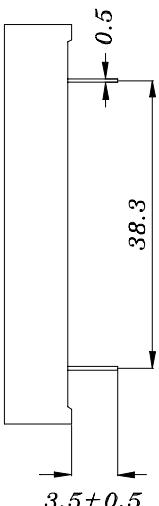
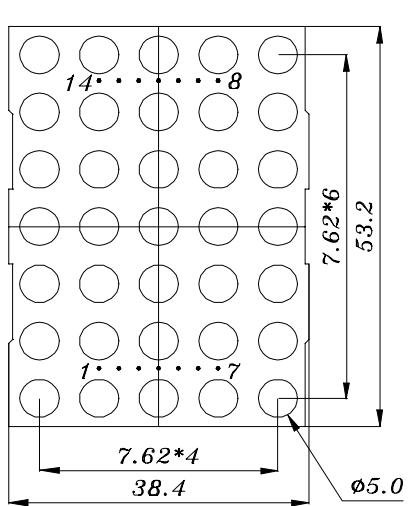
FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

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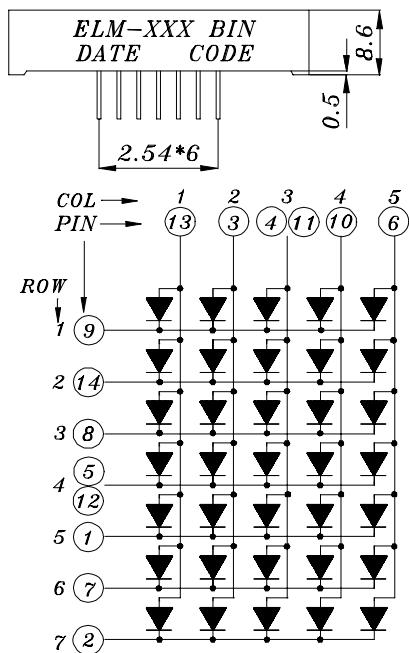
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■ Package Dimensions:



*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 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	40	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	110	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	IF(Peak)	180	mA

■ Electronic optical characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	7.8	12.0	---	mcd	IF=10mA
Peak Wavelength	λ p	----	660	----	nm	IF=20mA
Dominant Wavelength	λ d	----	643	----	nm	IF=20mA
Spectrum Radiation Bandwidth	△ λ	----	20	---	nm	IF=20mA
Forward Voltage	VF	1.5	1.7	2.4	V	IF=20mA
Reverse Current	IR	----	---	10	μ A	VR=5V

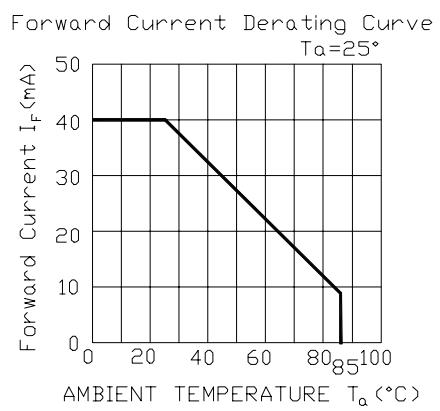
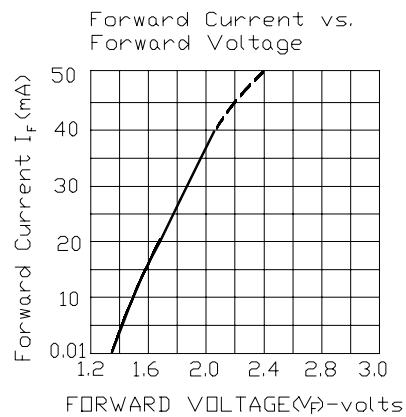
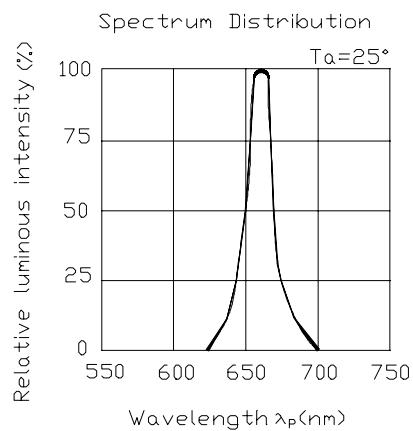
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█ Typical Electro-Optical Characteristic Curves:

SR





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■ Reliability test items and conditions:					
NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : $+85^{\circ}\text{C}$ 30min ↓ 5 min L : -55°C 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : $+100^{\circ}\text{C}$ 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