



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-200-028 REV: 1.0

## 2.0" 5\*7 Dot Matrix Displays

MODEL NO : ELM-2002SYGWA/S530-E1 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-2002SYGWA/S530-E1	AlGaInP	Super Yellow Green	C.A.

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<http://www.everlight.com>



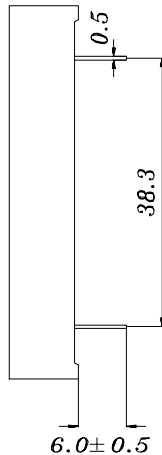
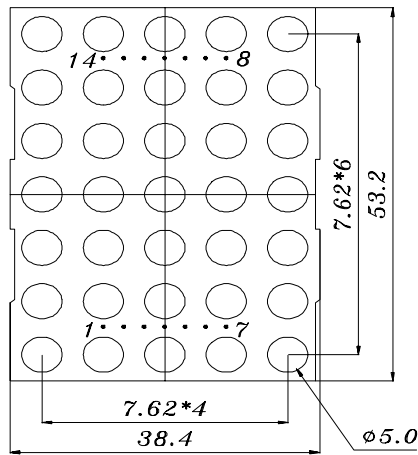
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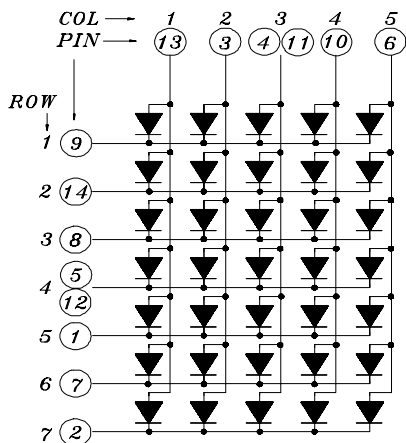
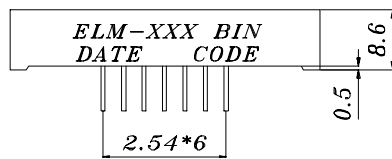
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MODEL NO : ELM-2002SYGWA/S530-E1 ECN : \_\_\_\_\_ Page: 2/5

### 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.



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■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	25	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	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	0.75	1.7	----	mcd	If=2mA
		4.0	11.2			If=10mA
Peak Wavelength	$\lambda_p$	----	575	----	nm	If=20mA
Dominant Wavelength	$\lambda_d$	----	573	----	nm	If=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	----	20	----	nm	If=20mA
Forward Voltage	Vf	----	2.0	2.4	V	If=20mA
Reverse Current	Ir	----	----	10	$\mu A$	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°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



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■ Typical Electro-Optical Characteristic Curves:

SYG

