



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-204-033 REV: 1.0

1.8" 4*4 Multicolor Dot Matrix Displays

MODEL NO : ELM-2042SURSYGWB/S530-A2 ECN : _____ Page: 1/5

■ Features :

- Large emitting dot 0.354" diameter.
- Low power/high brightness.

■ Applications:

- Instrument panels
- Digital read out display

■ Description :

- The ELM-2042 series are a large emitting area(9.0mm diameter)LED sources configured in a 16 dots 4*4 matrix array.
- These device is made with white dots and black surface.

PART NO		CHIP		C.C. or C.A.
		Material	Emitted Color	
ELM-2042SURSYGWB/S530-A2	(SUR)	AlGaInP	Hyper Red	C.A.
	(SYG)	AlGaInP	Super Yellow Green	

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<http://www.everlight.com>



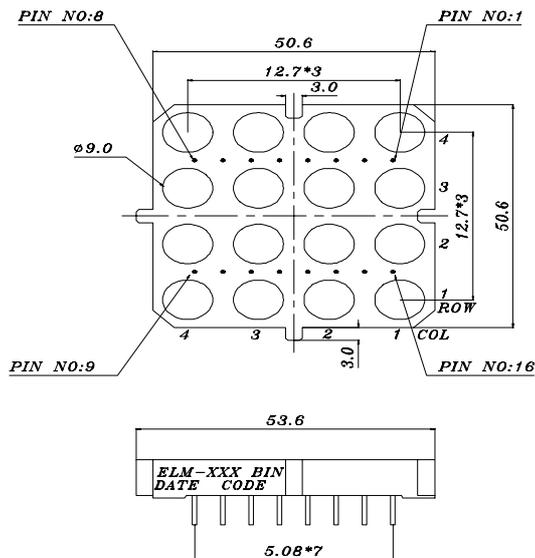
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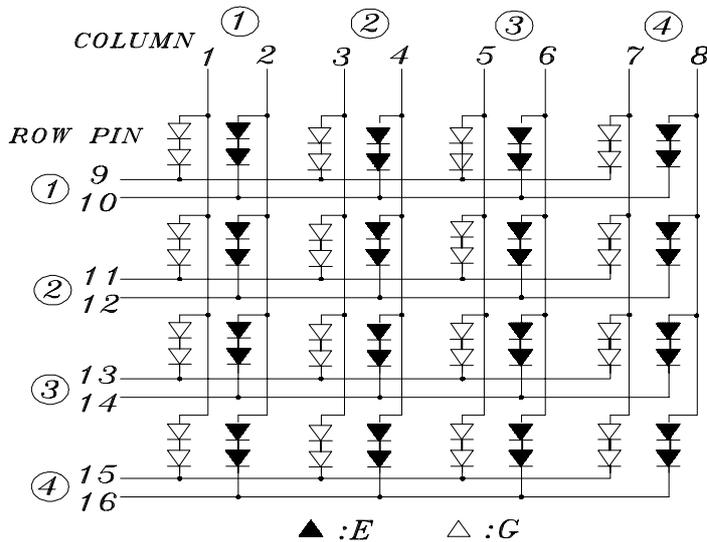
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Package Dimension:



ANODE COLUMN	
CATHODE ROW	
1	ANODE COLUMN 1(E)
2	ANODE COLUMN 1(G)
3	ANODE COLUMN 2(E)
4	ANODE COLUMN 2(G)
5	ANODE COLUMN 3(E)
6	ANODE COLUMN 3(G)
7	ANODE COLUMN 4(E)
8	ANODE COLUMN 4(G)
9	CATHODE ROW 1(E)
10	CATHODE ROW 1(G)
11	CATHODE ROW 2(E)
12	CATHODE ROW 2(G)
13	CATHODE ROW 3(E)
14	CATHODE ROW 3(G)
15	CATHODE ROW 4(E)
16	CATHODE ROW 4(G)



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	120	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(SUR)	0.75	2.4	----	mcd	If=2mA
	Iv(SYG)	0.45	1.5	----	mcd	If=2mA
	Iv(SUR)	5.6	15.9	----	mcd	If=10mA
	Iv(SYG)	4.0	10.1	----	mcd	If=10mA
Peak Wavelength	λ p(SUR)	----	632	----	nm	If=20mA
	λ p(SYG)	----	575	----	nm	If=20mA
Dominant Wavelength	λ d(SUR)	----	624	----	nm	If=20mA
	λ d(SYG)	----	573	----	nm	If=20mA
Spectrum Radiation	Δ λ (SUR)	----	20	----	nm	If=20mA
Bandwidth	Δ λ (SYG)	----	20	----	nm	If=20mA
Forward Voltage	Vf	----	4.0	4.8	V	If=20mA
Reverse Current	Ir	----	----	10	μ 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:

