



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDM-288-018 REV: 1

2.3" 8*8 Dot Matrix Displays

PATR NO. : ELM-2881SURSYGWA/S530-A3 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-2881 series is a large emitting area(5.0mm diameter)LED sources configured in a 64 dots 8*8 matrix array.
- These devices are made with water white dots and gray surface.

PART NO.		Chip	
		Material	Emitted Color
ELM-2881SURSYGWA/S530-A3	SUR	AlGaInP (SUR)	Hyper Red
	SYG	AlGaInP (SYG)	Super Yellow Green

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

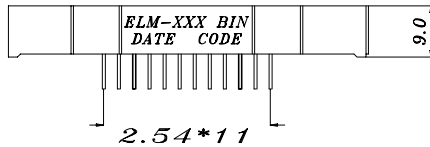
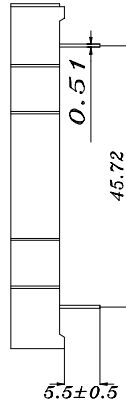
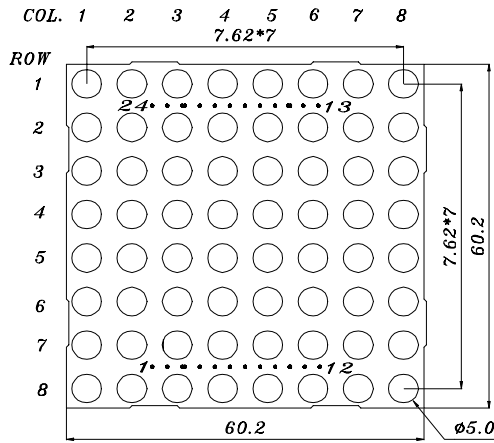
<http://www.everlight.com>

A0201095



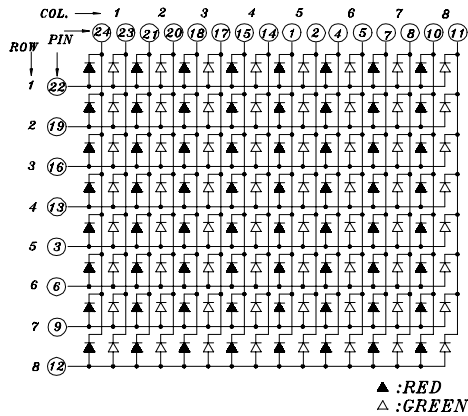
2.3" 8*8 Dot Matrix Displays

Package Dimensions:



CATHODE COLUMN	ANODE ROW
1	5(SUR)
2	5(SYG)
3	5
4	6(SUR)
5	6(SYG)
6	6
7	7(SUR)
8	7(SYG)
9	7
10	8(SUR)
11	8(SYG)
12	8
13	4
14	4(SYG)
15	4(SUR)
16	3
17	3(SYG)
18	3(SUR)
19	2
20	2(SYG)
21	2(SUR)
22	1
23	1(SYG)
24	1(SUR)

SUR=RED SYG=GREEN



Notes :

- All dimensions are in millimeters , tolerance is 0.25mm unless otherwise noted.
 - Above specification may be changed without notice.
- Supplier will reserve authority on material change for above specification.



2.3" 8*8 Dot Matrix Displays

■ 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 (SDR)	21.0	42.0	----	mcd	IF=10mA
		4.5	7.5	----		IF=2mA
	Iv (SYG)	5.6	8.9	----	mcd	IF=10mA
		1.5	2.5	----		IF=2mA
Peak Wavelength	λ p(SUR)	----	632	----	nm	IF=20mA
	(SYG)	----	575	----		
Dominant Wavelength	λ d(SUR)	----	624	----	nm	IF=20mA
	(SYG)	----	573	----		
Spectrum Radiation Bandwidth	△ λ	----	20	----	nm	IF=20mA
Forward Voltage	VF	----	2.0	2.4	V	IF=20mA
Reverse Current	IR	----	----	10	μ A	VR=5V



2.3" 8*8 Dot Matrix Displays

Typical Electro-Optical Characteristic Curves:

(SUR)

Spectrum Distribution
T_a=25°

Relative luminous intensity (%)

Wavelength λp(nm)

Forward Current vs.
Forward Voltage

Forward Current If (mA)

FORWARD VOLTAGE (VF)-volts

Forward Current Derating Curve

Forward Current If (mA)

AMBIENT TEMPERATURE T_Q(°C)

CHIP Material:AlGaInP
Emitted Color:Super Yellow Green

Spectrum Distribution
T_a=25°

Relative luminous intensity (%)

Wavelength λp(nm)

Forward Current vs.
Forward Voltage

Forward Current If (mA)

FORWARD VOLTAGE (VF)-volts

Forward Current Derating Curve

Forward Current If (mA)

AMBIENT TEMPERATURE T_Q(°C)



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDM-288-018 REV: 1

2.3" 8*8 Dot Matrix Displays

PATR NO. : ELM-2881SURSYGWA/S530-A3 ECN : _____ Page: 5/5

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