



EVERLIGHT ELECTRONICS CO.,LTD.

DATA SHEET

PART NO. : ELM-2882SURWA/S530-A3

DATE : 2004/6/30

DEPARTMENT : CHR D1

REVISION : 2

RECEIVED			
<input checked="" type="checkbox"/> MASS PRODUCTION			
<input type="checkbox"/> PRELIMINARY			
<input type="checkbox"/> CUSTOMER DESIGN			
DEVICE NUMBER : CDDM-288-025			
PAGE : 6			
CUSTOMER	DESIGNER	CHECKER	APPROVER

REV.	DESCRIPTION	RELEASE DATE

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Technical Data Sheet
2.3" 8*8 Dot Matrix Displays

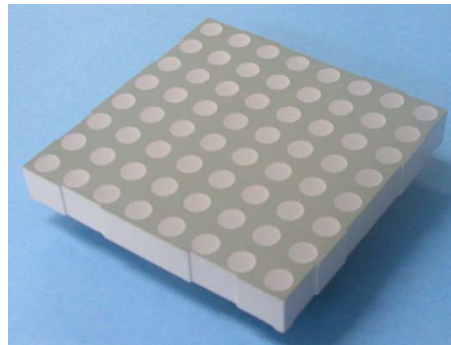
ELM-2882SURWA/S530-A3

■ Features :

- Large emitting dot 0.2" diameter.
- Low power/high brightness.
- Pb free
- The product itself will remain within RoHS compliant version

■ Descriptions :

- The ELM-2882 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 white dots and gray surface.



■ Applications :

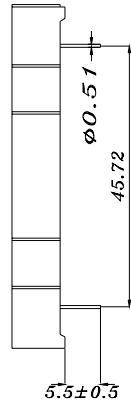
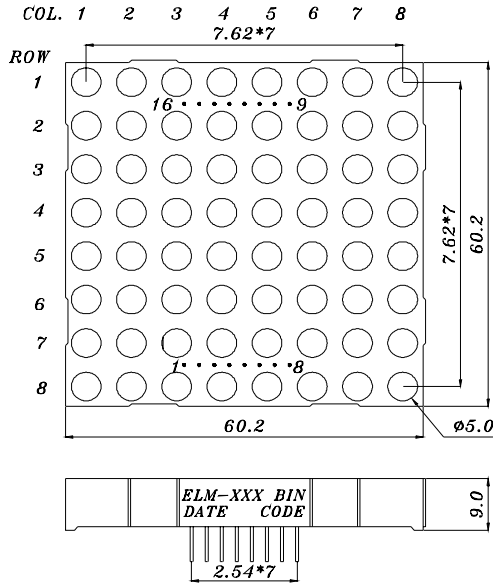
- Audio equipment
- Instrument panels
- Digital read out display

PART NO.	Chip	
	Material	Emitted Color
ELM-2882SURWA/S530-A3	AlGaInP	Hyper Red

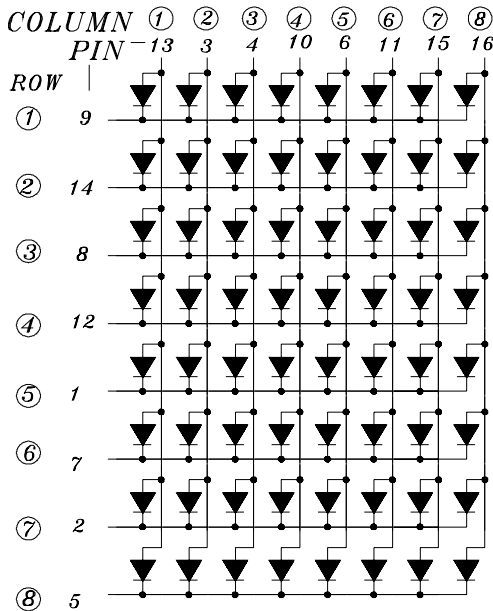
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Package Dimensions



<i>ANODE COLUMN</i>	
<i>CATHODE ROW</i>	
1 CATHODE ROW	5
2 CATHODE ROW	7
3 ANODE COLUMN	2
4 ANODE COLUMN	3
5 CATHODE ROW	8
6 ANODE COLUMN	5
7 CATHODE ROW	6
8 CATHODE ROW	3
9 CATHODE ROW	1
10 ANODE COLUMN	4
11 ANODE COLUMN	6
12 CATHODE ROW	4
13 ANODE COLUMN	1
14 CATHODE ROW	2
15 ANODE COLUMN	7
16 ANODE COLUMN	8



- 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	V _R	5	V
Forward Current	I _F	25	mA
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +100	°C
Soldering Temperature *	T _{sol}	260 ± 5	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P _d	60	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _{F(Peak)}	160	mA

Note: *Soldering time ≤ 5 seconds.

■ Electronic optical characteristics :

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	I _v	----	4.0	----	mcd	I _F =2mA
			7.8	21.0	----	mcd	I _F =10mA
Peak Wavelength		λ _p	----	632	----	nm	I _F =20mA
Dominant Wavelength		λ _d	----	624	----	nm	I _F =20mA
Spectrum Radiation Bandwidth		Δλ	----	20	----	nm	I _F =20mA
Forward Voltage		V _F	----	2.0	2.4	V	I _F =20mA
Reverse Current		I _R	----	----	100	μA	V _R =5V

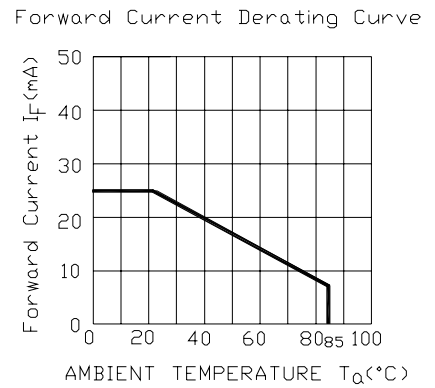
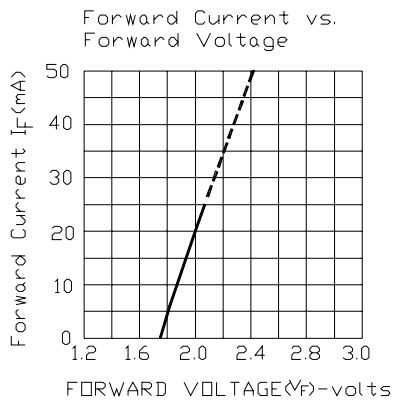
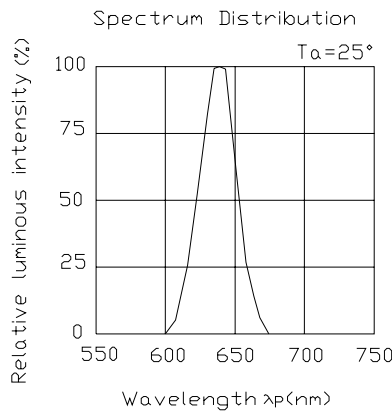


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■ Typical Electro-Optical Characteristic Curves:

(SUR)





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ELM-2882SURWA/S530-A3**Reliability test items and conditions:**

The reliability of products shall be satisfied with items listed below.

Confidence level : 97%

LTPD : 3%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	$I_v \leq I_{vt} * 0.5$ or $V_f \geq U$ or $V_f \leq L$	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

Note : I_{vt} : The test I_v value of the chip before the reliability testI_v : The test value of the chip that has completed the reliability test

U : Upper Specification Limit

L : Lower Specification Limit



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■ Packing Quantity Specification

- 1.8PCS/tube, 14 tubes/box
- 2.4Boxes/Carton

Label Form Specification

EVERLIGHT		CPN: Customer's Production Number
CPN:	RoHS	P/N : Production Number
P/N:		QTY: Packing Quantity
	M2882SURWA/S530-A3	CAT: Ranks
QTY:		HUE: Dominant Wavelength
	CAT:	REF: Reference
LOT NO:	HUE:	LOT No: Lot Number
	REF:	MADE IN CHINA: Production Place
MADE IN CHINA		

Notes :

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.

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