



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDM-183-012 REV: 1.0

1.22" 8*8 Dot Matrix Display

MODEL NO : ELM-1883SRWA ECN : Page: 1/4

Features :

- Large emitting dot 0.12" diameter.
- Low power/high brightness.

Description :

- The ELM-1883 series are a large emitting area(3.0mm diameter)LED sources configured in a 64 dots 8*8 matrix array.
- These device is made with white dots and gray surface.

Applications:

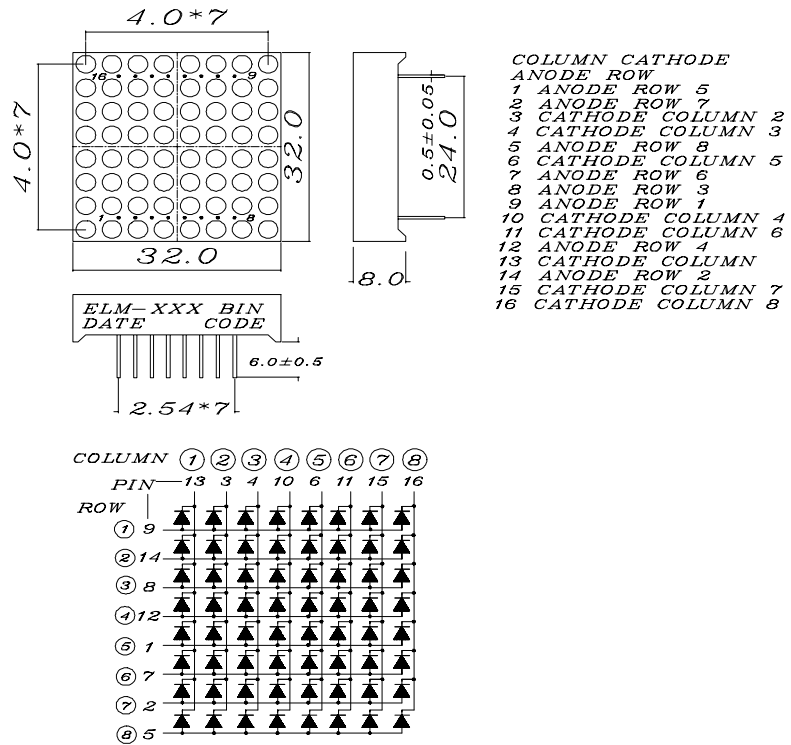
- Instrument panels
- Digital readout display

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.

Package Dimension:



PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELM-1883SRWA	GaAlAs	Super Red	C.C.

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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	40	mA
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +100	°C
Soldering Temperature	T _{sol}	260 ± 5	°C
Power Dissipation	P _d	110	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _f (Peak)	180	mA

■ Electronic optical characteristics :

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	I _v	5.6	8.0	----	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	V _f	1.5	1.7	2.4	V	If=20mA
Reverse Current	I _r	----	----	10	μA	V _r = 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 = 20 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:

