

SPECIFICATION FORM**FEATURES**

- ✧ Φ 3.0MM DOT SIZE
- ✧ 22.80MM×39.10MM OUTLINE
- ✧ 5×7 FORMAT
- ✧ DUAL COLOR DOT MATRIX
- ✧ LOW POWER REQUIREMENT
- ✧ HIGH CONTRAST
- ✧ HIGH BRIGHTNESS
- ✧ SOLID STATE RELIABILITY

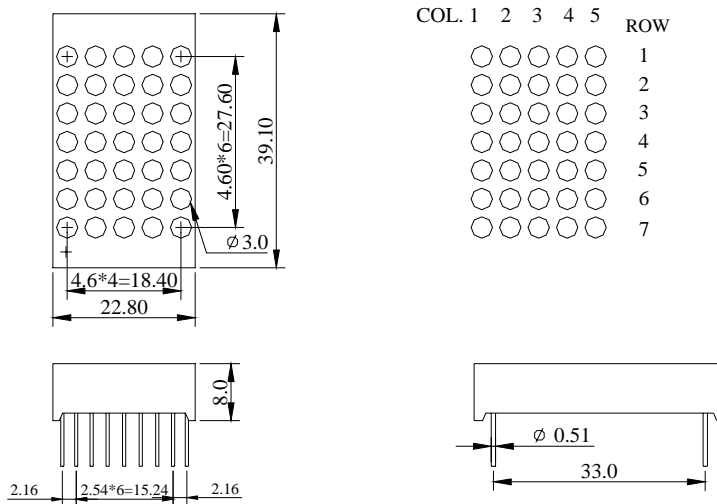
DESCRIPTION

The REC-M1057CSR2 is a ϕ 3.0 dot size, 22.80mm×39.10mm outline, 5×7 format, dual color (super-red and yellow-green), row cathode, LED dot matrix display. This display utilizes super-red LED chips fabricated from GaAlAs epiwafer on GaAs substrate grown by liquid phase epitaxy and yellow-green LED chips fabricated from GaP epiwafer on GaP substrate grown by liquid phase epitaxy. The devices have black face and white dots.

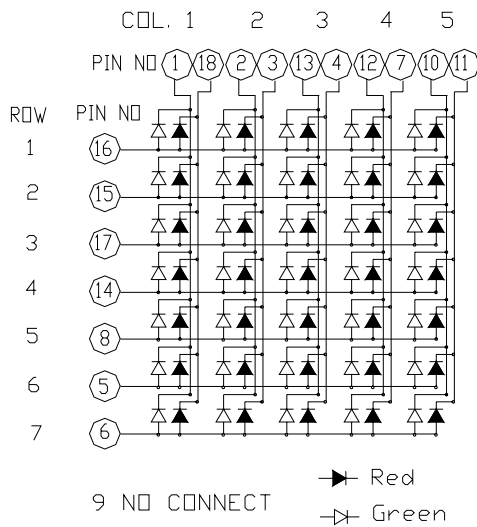
DEVICE

PART NO.	EMITTING COLOR	DESCRIPTION
REC-M1057CSR2	Super-Red and Yellow-Green	Row cathode, Black face, White dot

PACKAGE DIMENSION



INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

PIN NO.	CONNECTION	PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Cathode column 1 G	7	Cathode column 4 R	13	Cathode column 3 G
2	Cathode column 2 G	8	Anode Row 5	14	Anode Row 4
3	Cathode column 2 R	9	Cathode column 2	15	Anode Row 2
4	Cathode column 3 R	10	Cathode column 5 G	16	Anode Row 1
5	Anode Row 6	11	Cathode column 5 R	17	Anode Row 3
6	Anode Row 7	12	Cathode column 4 G	18	Cathode column 1 R

ABSOLUTE MAXIMUM RATING AT T_A=25°C

PARAMETER	RED	GREEN
Power Dissipation per dot, P _{AD} (mW)	60	75
Peak Forward Current per dot, I _{PF} (mA)	80	80
Continuous Forward Current per dot, I _{AF} (mA)	20	20
Reverse Voltage per dot, V _R (V)	5	5
Operating Temperature Range, T _{opr}	- 25°C to + 60°C	
Storage Temperature Range, T _{stg}	- 30°C to + 85°C	
Solder Temperature : 1 / 16 inch below seating plane for 3 seconds at 260°C		

ELECTRO - OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	RED			GREEN		
	MIN	TYP	MAX	MIN	TYP	MAX
Luminous Intensity per chip, I _V (mcd, I _F =20mA)	7	10	15	10	15	20
Peak Emission Wavelength, λ _p (nm, I _F =20mA)		645			568	
Domonant Wavelength, λ _d (nm, I _F =20mA)		643			573	
Special Line Half-Width, Δλ (nm, I _F =20mA)		20			30	
Forward Voltage per dot, V _F (V, I _F =20mA)	1.6	1.75	2.10	1.80	2.15	2.50
Reverse Current per dot, I _R (μA, V _R =5V)			50			50
Luminous Intensity Matching Ratio, I _{V-m} (I _F =20mA)			2 : 1			2 : 1