

SPECIFICATION FORM**FEATURES**

- ◇ Φ 1.90MM DOT SIZE
- ◇ 20.20MM×20.20MM OUTLINE
- ◇ 5×7 FORMAT
- ◇ DUAL COLOR DOT MATRIX
- ◇ LOW POWER REQUIREMENT
- ◇ HIGH CONTRAST
- ◇ HIGH BRIGHTNESS
- ◇ SOLID STATE RELIABILITY

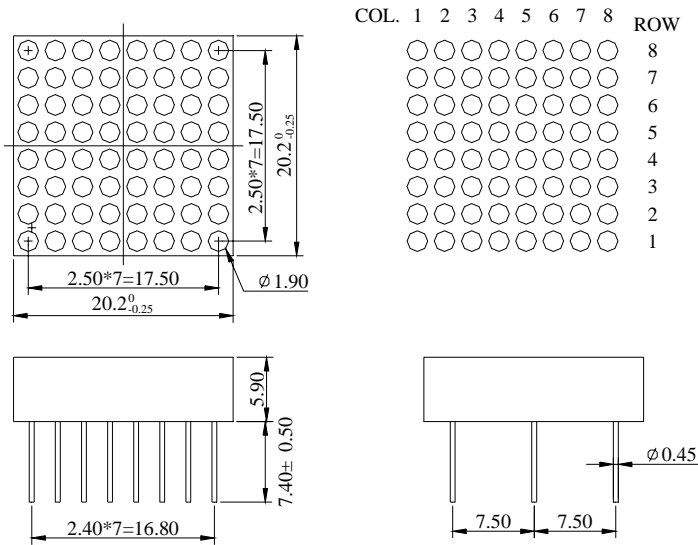
DESCRIPTION

The REC-M788CSRG is a ϕ 1.90 dot size, 20.20mm×20.20mm outline, 8×8 format, dual color, 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

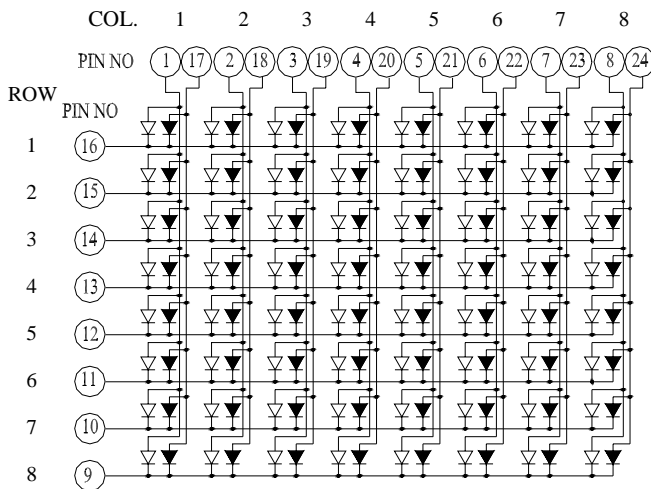
PART NO.	EMITTING COLOR	DESCRIPTION
REC-M788CSRG	Super-Red and Yellow-Green	Black face & White dot

PACKAGE DIMENSION



- Notes: 1. All dimensions are in millimeters.
 2. Tolerance is ± 0.25 mm unless otherwise specified.

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

PIN NO.	CONNECTION	PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Anode Col. 1 G	9	Anode Row 8	17	Anode Col. 1 R
2	Anode Col. 2 G	10	Anode Row 7	18	Anode Col. 2 R
3	Anode Col. 3 G	11	Anode Row 6	19	Anode Col. 3 R
4	Anode Col. 4 G	12	Anode Row 5	20	Anode Col. 4 R
5	Anode Col. 5 G	13	Anode Row 4	21	Anode Col. 5 R
6	Anode Col. 6 G	14	Anode Row 3	22	Anode Col. 6 R
7	Anode Col. 7 G	15	Anode Row 2	23	Anode Col. 7 R
8	Anode Col. 8 G	16	Anode Row 1	24	Anode Col. 8 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) (1/10 Duty Cycle, 0.1ms Pulse Width.)	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	TYPE	MAX	MIN	TYPE	MAX
Luminous Intensity per chip, I _V (mcd, I _F =20mA)	5	7	10	10	15	20
Peak Emission Wavelength, λ _p (nm, I _F =20mA)		645			568	
Dominant 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	1.8	2.10	1.80	2.20	2.50
Reverse Current per dot, I _R (μA, V _R =5V)			100			100
Luminous Intensity Matching Ratio, I _{V-m} (I _F =20mA)			2 : 1			2 : 1