

SPECIFICATION FORM**FEATURES**

- ◇ Φ 5.0MM DOT SIZE
- ◇ 60.2MM×60.2MM OUTLINE
- ◇ 8×8 FORMAT
- ◇ DUAL COLOR DOT MATRIX
- ◇ LOW POWER REQUIREMENT
- ◇ HIGH CONTRAST
- ◇ HIGH BRIGHTNESS
- ◇ SOLID STATE RELIABILITY

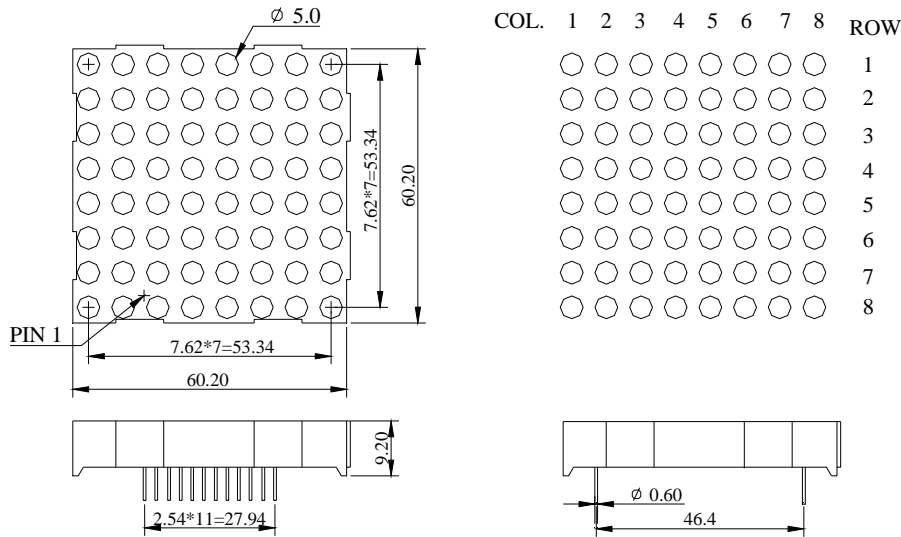
DESCRIPTION

The REC-M2388CSRG is a ϕ 5.0 dot size, 60.2mm×60.2mm outline, 8×8 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.

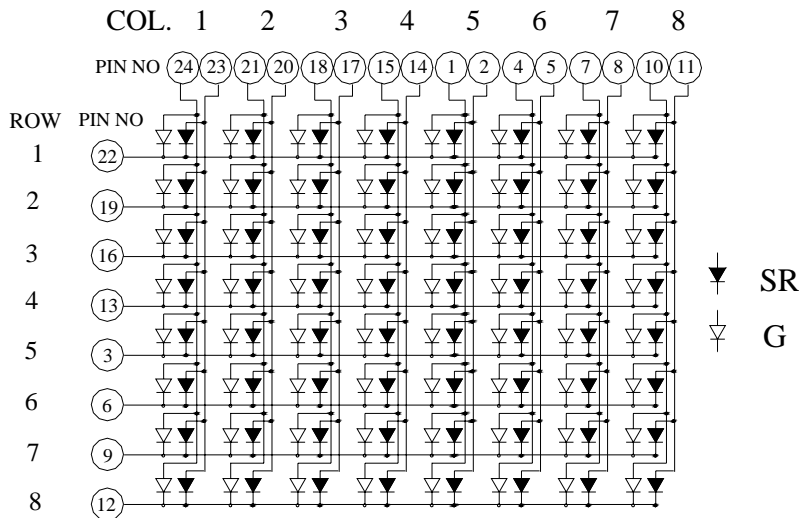
DEVICE

PART NO.	EMITTING COLOR	DESCRIPTION
RECM2388CSRG	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	Anode Col. 5 G	9	Cathode Row 7	17	Anode Col. 3 R
2	Anode Col. 5 R	10	Anode Col. 8 G	18	Anode Col. 3 G
3	Cathode Row 5	11	Anode Col. 8 R	19	Cathode Row 2
4	Anode Col. 6 G	12	Cathode Row 8	20	Anode Col. 2 R
5	Anode Col. 6 R	13	Cathode Row 4	21	Anode Col. 2 G
6	Cathode Row 6	14	Anode Col. 4 R	22	Cathode Row 1
7	Anode Col. 7 G	15	Anode Col. 4 G	23	Anode Col. 1 R
8	Anode Col. 7 R	16	Cathode Row 3	24	Anode Col. 1 G

ABSOLUTE MAXIMUM RATING AT $T_A=25^{\circ}\text{C}$

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)	100	100
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 + 85°C	
Storage Temperature Range, T_{stg}	- 30°C to + 90°C	
Solder Temperature : 1 / 16 inch below seating plane for 3 seconds at 260°C		

ELECTRO - OPTICAL CHARACTERISTICS AT $T_A=25^{\circ}\text{C}$

PARAMETER	RED			GREEN		
	MIN	TYP	MAX	MIN	TYP	MAX
Luminous Intensity per chip, I_V (mcd, $I_F=20\text{mA}$)	7	10	15	10	15	20
Peak Emission Wavelength, λ_p (nm, $I_F=20\text{mA}$)		645			568	
Domonant Wavelength, λ_d (nm, $I_F=20\text{mA}$)		643			573	
Special Line Half-Width, $\Delta\lambda$ (nm, $I_F=20\text{mA}$)		20			30	
Forward Voltage per dot, V_F (V, $I_F=20\text{mA}$)	1.60	1.80	2.10	1.80	2.15	2.60
Reverse Current per dot, I_R (μA , $V_R=5\text{V}$)			50			50
Luminous Intensity Matching Ratio, I_{V-m} ($I_F=20\text{mA}$)			2 : 1			2 : 1