

RAYCONN ELECTRONICS CO., LTD.

SPECIFICATION FORM

FEATURES

- ◇ Φ 3.0MM DOT SIZE
- ◇ 32.0MM×32.0MM OUTLINE
- ◇ 8×8 FORMAT
- ◇ SINGLE COLOR DOT MATRIX
- ◇ LOW POWER REQUIREMENT
- ◇ EASY ASSEMBLY
- ◇ SOLID STATE RELIABILITY

DESCRIPTION

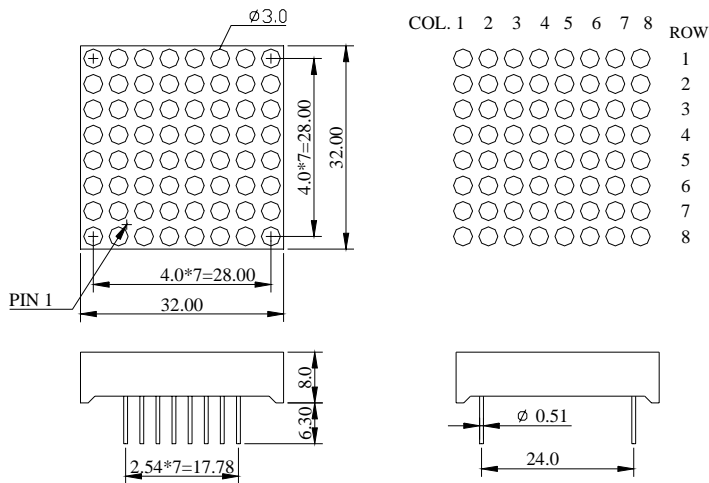
The REC-M1388ASR is a ϕ 3.0 dot size, 32.0mm×32.0mm outline, 8×8 format, single color, row anode, LED dot matrix display. This display utilizes red LED chips fabricated from GaAlAs epiwafer on GaAs substrate grown by liquid phase epitaxy. The devices have black face and white dots.

DEVICE

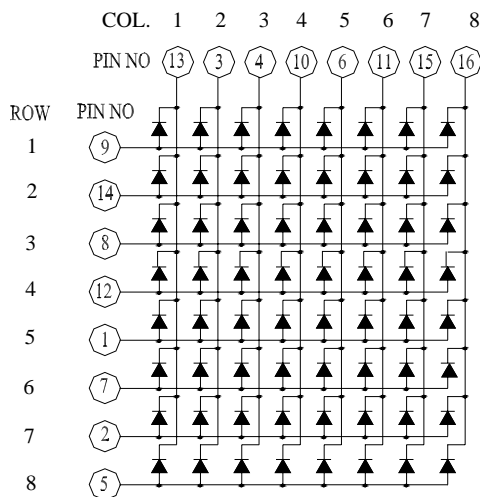
PART NO.	EMITTING COLOR	DESCRIPTION
REC-M1388ASR	Super-Red	Row Anode, Black face, White dot

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PACKAGE DIMENSION



INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

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

PARAMETER	SYMBOL	MAXIMUM	UNIT
Power Dissipation per dot	P_{AD}	60	mW
Peak Forward Current per dot (1/10 duty cycle, 0.1ms pulse width)	I_{PF}	80	mA
Continuous Forward Current per dot	I_{AF}	20	mA
Reverse Voltage per dot	V_R	5	V
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 $T_A = 25^\circ\text{C}$

PARAMETER	UNIT	MIN	TYPE	MAX
Luminous Intensity per chip, I_V ($I_F=20\text{mA}$)	mcd	6	9	13
Peak Emission Wavelength, λ_p ($I_F=20\text{mA}$)	nm		645	
Special Line Half-Width, $\Delta\lambda$ ($I_F=20\text{mA}$)	nm		20	
Forward Voltage per chip, V_F ($I_F=20\text{mA}$)	V	1.6	1.8	2.1
Reverse Current per chip, I_R , ($V_R=5\text{V}$)	μA			100
Luminous Intensity Matching Ratio, I_{V-m} ($I_F=20\text{mA}$)				2 : 1