

# RAYCONN ELECTRONICS CO., LTD.

## SPECIFICATION FORM

### FEATURES

- ◇ 22.50MM×33.00MM OUTLINE
- ◇ 1.0 INCHES (25.40MM) DIGIT HEIGHT
- ◇ SINGLE DIGIT
- ◇ SINGLE COLOR
- ◇ HIGH BRIGHTNESS
- ◇ EASY ASSEMBLY
- ◇ SOLID STATE RELIABILITY

### DESCRIPTION

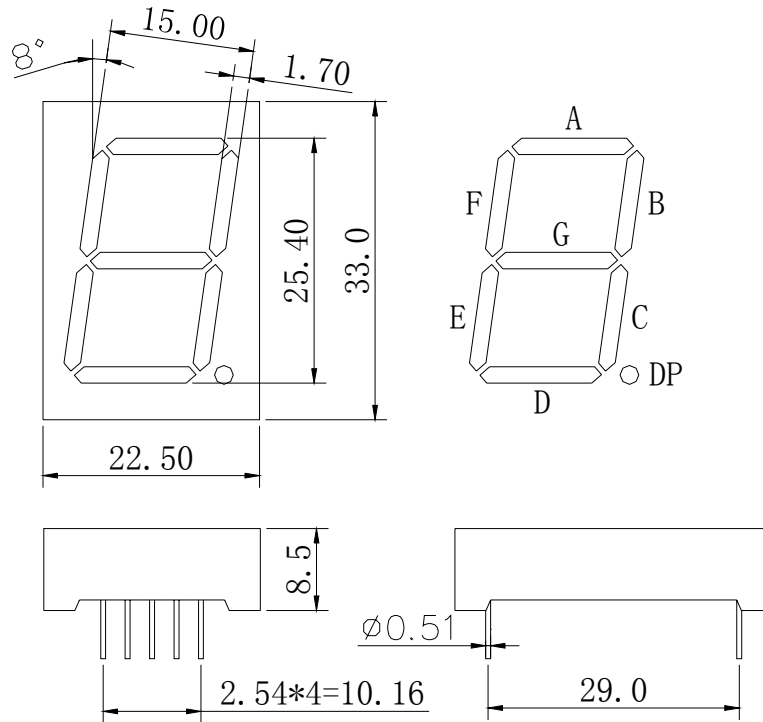
The REC-S10102ASR(C) is a 1.0 inches (25.40mm) digit height, 22.50mm×33.00mm outline, single color, single digit, common anode & common cathode numeric display. This display utilizes red LED chips fabricated from GaAlAs epiwafer on GaAs substrate grown by liquid phase epitaxy. The devices have black face and white segments.

### DEVICE

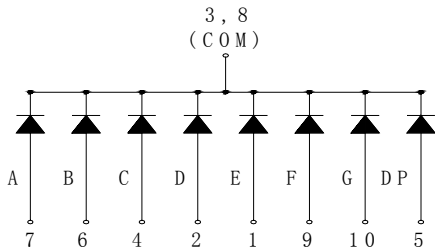
PART NO.	EMITTING COLOR	DESCRIPTION
REC-S10102ASR(C)	Super-Red	Black face, White Segments.

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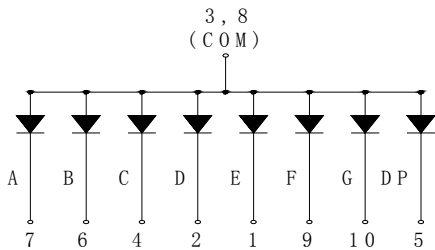
## PACKAGE DIMENSION



## INTERNAL CIRCUIT DIAGRAM



1. ANODE E
2. ANODE D
3. COMMON CATHODE
4. ANODE C
5. ANODE DP
6. ANODE B
7. ANODE A
8. COMMON CATHODE
9. ANODE F
10. ANODE G



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

PARAMETER	SYMBOL	MAXIMUM	UNIT
Power Dissipation per dot	$P_{AD}$	120	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	$V_R$	10	V
Operating Temperature Range, $T_{opr}$		- 25° C to + 80° 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	10	12	13
Peak Emission Wavelength, $\lambda_p$ ( $I_F=20\text{mA}$ )	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, $I_R$ , ( $V_R=5\text{V}$ )	$\mu\text{A}$			100
Luminous Intensity Matching Ratio, $I_{V-m}$ ( $I_F=20\text{mA}$ )				2 : 1