



YETDA INDUSTRY LTD.

## 0.28" SINGLE BLUE DIGIT SMD LED DISPLAY

### S-2812AB21-SMD

#### DESCRIPTION

- \* 0.28" (7.1mm) Inch Digit Height.
- \* Blue Emitting Color
- \* Gray Face and White Segment Color.
- \* Common Anode.

#### ABSOLUT MAXIMUM RATINGS AT Ta=25°C

Parameter		UNIT
Power Dissipation Per Seg. & Dot	70	mW
Peak Forward Current Per Seg. & Dot	90	mA
Forward current Per Seg. & Dot (Static)	25	mA
Reverse Voltage Per Seg. & Dot	5	V
Operation Temperature Range	-40°C TO +105°C	°C
Storage Temperature Range	-40°C TO +105°C	°C
Lead Soldering Temperature	260°C for 3 seconds 1.6mm(1/16 inch) from body	

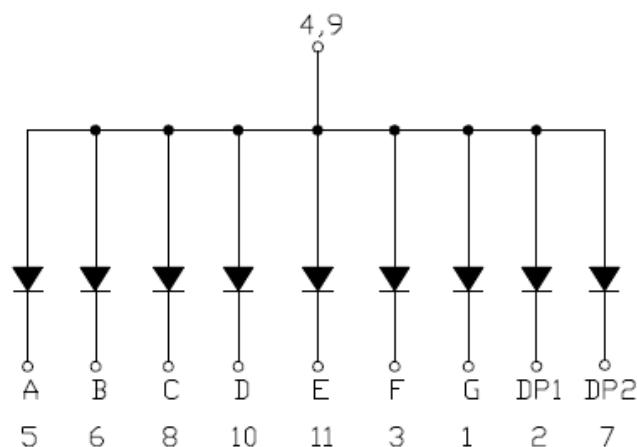
#### ELECTRICAL/OPTOTICAL CHARACTERISTIC AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITION
Average Luminous Intensity	I <sub>v</sub>	4.2	7		mcd	I <sub>f</sub> =10mA
Emission Wavelength	λ d		470		nm	I <sub>f</sub> =20mA
Forward Voltage Per Seg. & Dot	V <sub>f</sub>		3.2	3.8	V	I <sub>f</sub> =20mA
Reverse Current Per Seg.	I <sub>r</sub>			10	uA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	I <sub>v-m</sub>			2 : 1		I <sub>f</sub> =10mA



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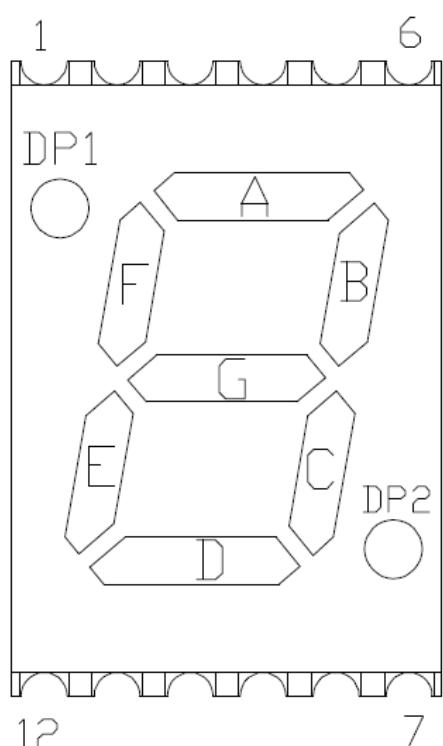
## P.C.B. Pin Connection



N0.12 N.C

Common Anode

## Reflector Dimensions

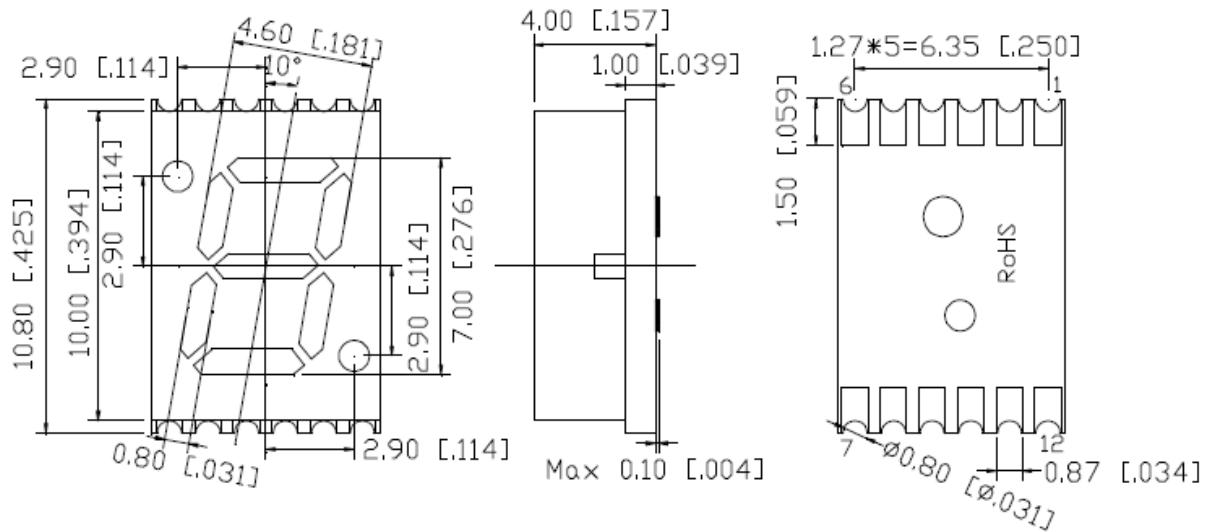


Unit:mm



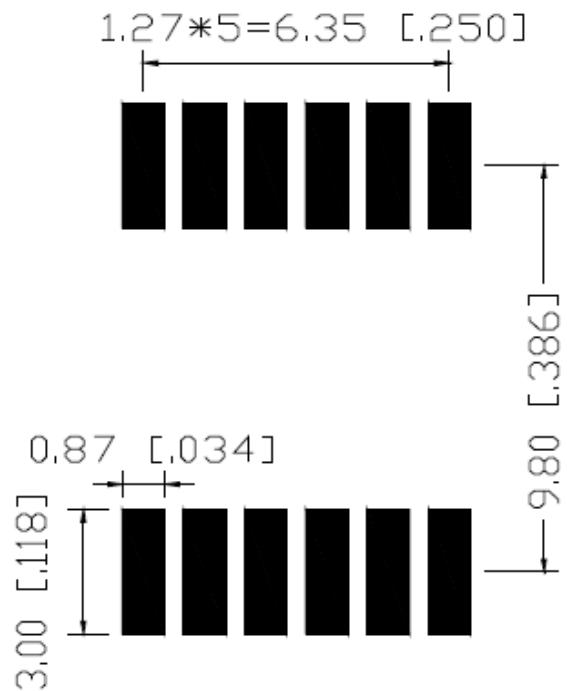
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## Mechanical Dimensions



Unit:mm

## RECOMMEND PAD LAYOUT





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## Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

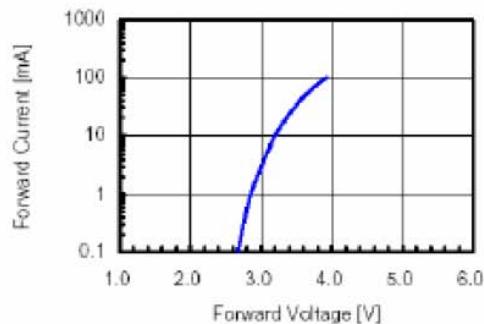


Fig 2. Relative Intensity vs. Forward Current

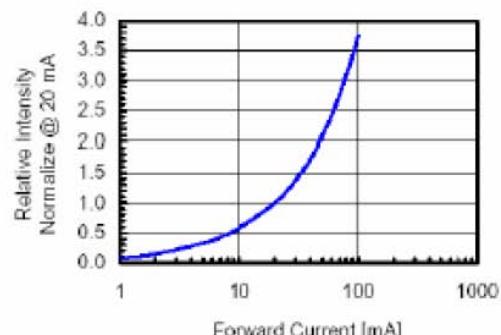


Fig 3. Forward Voltage vs. Temperature

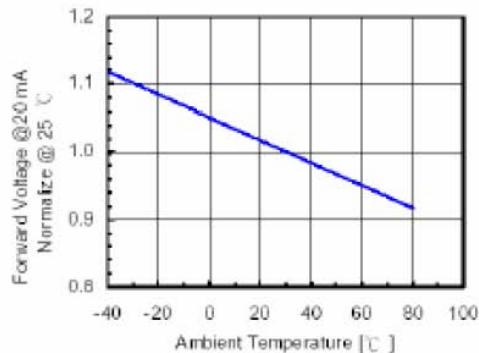


Fig 4. Relative Intensity vs. Temperature

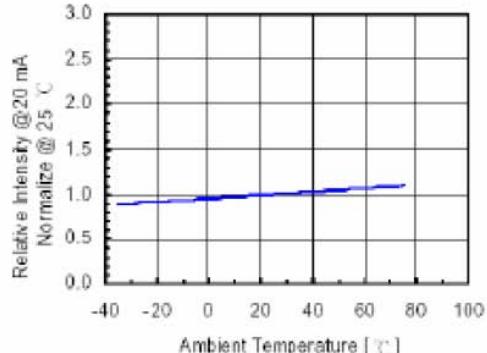
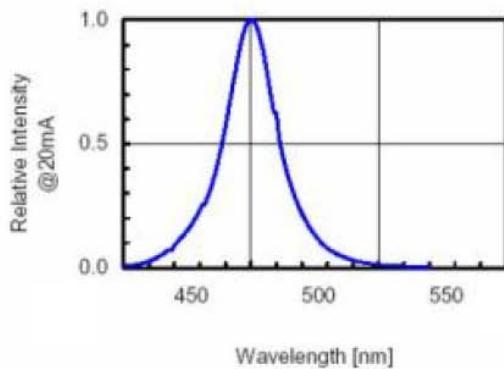


Fig 5. Relative Intensity vs. Wavelength





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## Precautions For Use :

### Over - current - proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen )

### Storage

1. The operation of temperature and R.H. are :  $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$ , 60%R.H. Max.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp-proof box with desiccating agent. Considering the tape life, we suggest our customers to use our products within 1.5 year ( from production date ).
3. It's recommended to bake before soldering when the package is unsealed after 72 hrs. The condition is :  $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$  for 15hrs.

## ■ Reflow Temp/Time

### ■ Temperature-profile (Surface of circuit board)

Use the following conditions shown in the figure.

