

World Components Network Service Ltd

Customer Name:**Date:**

2017-2-4

Part No:

WCN1SX-1040HY-A1

**Product Group
Description:**

LED Display

Customer Part No:**Approval Date:****Customer
Confirmation****Approved by****Checked by**Athena
2017-2-4**Prepared By**Fei
2017-2-4

Country of Origin: China

World Components Network Service Ltd

5th Floor,Block A-2,Xuxingda Ind Zone
Shiyan Town,Bao An District , Shenzhen
Tel : (86)755-29000022
Fax : (86)755-29000023

[www . wcnopto.net](http://www.wcnopto.net)

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REVISION RECORD

MARKER	Matter for revision	SHEET	DTAE	MAKER	APPOVED SIGN	
	Reason for revision					
A0	P# WCN1SX-1040HY-A1	Whole Spec	2017-2-4	Fei	Athena	
	New Version issued					

1. Type No./Manufacture's Name

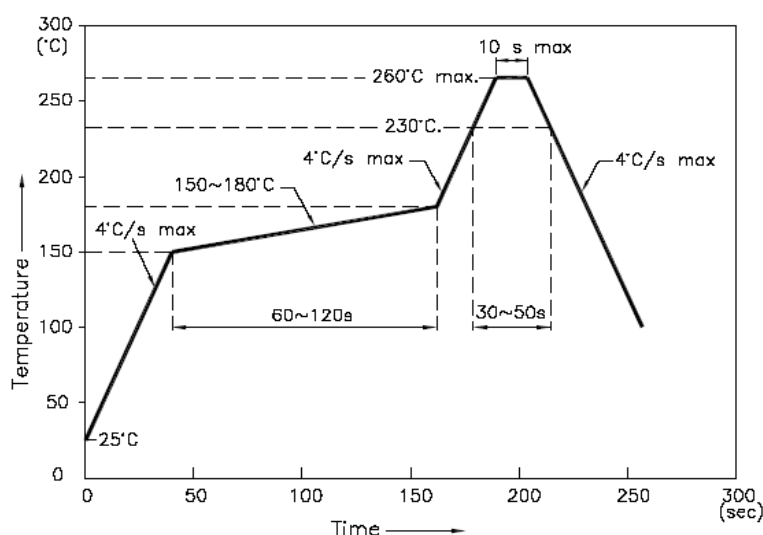
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2. Features:

- High Reliability
- Low Power Requirement
- Easy Assembly

3. Faction: Display Digit Characteristic**4. Soldering Conditions: Soldering Temp. 260 ± 5 °C, Soldering Time. 3~5 sec.**

Soldering Power <30 W.

5. Re-flow Temp/Time**NOTES:**

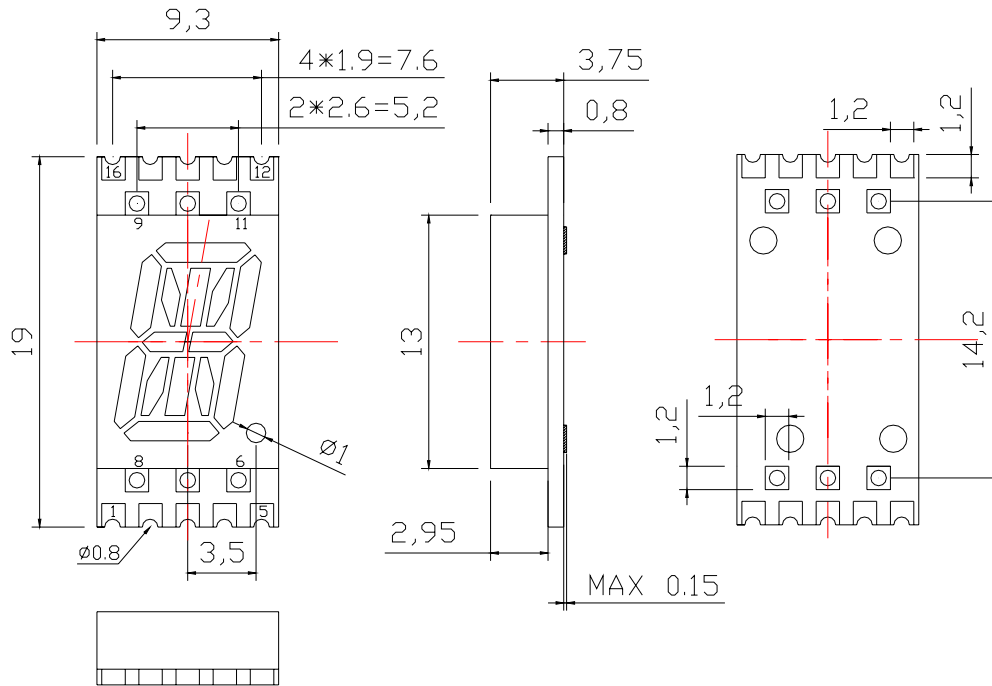
5.1. We recommend the re-flow temperature $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .

5.2. Don't cause stress to the epoxy resin while it is exposed to high temperature. Number of re-flow process shall be 2 times or less.

6. Description:

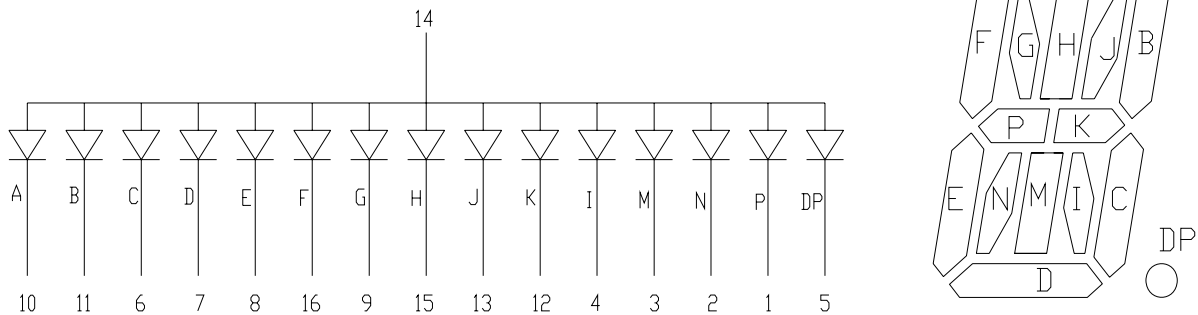
- Single Digit LED Display
- Digit Height: 10.16mm(0.40")
- Gray Face and Milky Segment
- Color: Yellow

■ **Outer Dimension:**



Notes: Unless otherwise stated, the tolerance is $\pm 0.25\text{mm}$.

■ **Circuit Diagram:**



■ **Pin Connection:**

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Cathode P	9	Cathode G
2	Cathode N	10	Cathode A
3	Cathode M	11	Cathode B
4	Cathode I	12	Cathode K
5	Cathode DP	13	Cathode J
6	Cathode C	14	Common Anode
7	Cathode D	15	Cathode H
8	Cathode E	16	Cathode F

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■ ABSOLUTE MAXIMUM RATINGS AT TA=25°C

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	P _d	—	Yellow	65	mW
Forward Current Per Segment	I _F	—	Yellow	25	mA
Peak Forward Current Per Segment	I _{FP}	1/10 Duty 1KHz	Yellow	100	mA
Reverse Voltage Per Segment	V _R	—	Yellow	5	V
Operating Temperature Range	T _{opr}	—	—	-35~+85	°C
Storage Temperature Range	T _{stg}	—	—	-35~+105	°C

■ Electrical/Optical Characteristics Rating(Ta=25°C)

Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	V _F	I _F =20mA	Per Chip	—	2.00	2.60	V
Reverse Current	I _R	V _R =5V	Per Chip	—	—	100	μA
Luminous Intensity	I _V	I _F =10mA	Per Chip	6101	9200	—	ucd
Wave Length	λ _P	I _F =20mA	Per Chip	—	593	—	nm
	λ _D			584	588	592	
Spectral Line Half Width	△λ	I _F =20mA	Per Segment	—	—	20	nm
Luminous Intensity Matching Ratio (Segment To Segment)	I _{v-m}	I _F =10mA				1.2:1	

■ Typical Optical-Electronic Characteristic Curves

Fig 1. Forward Current vs. Forward Voltage

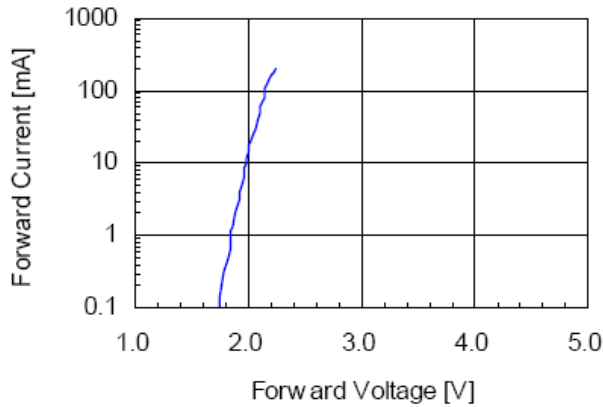


Fig 2. Relative Intensity vs. Forward Current

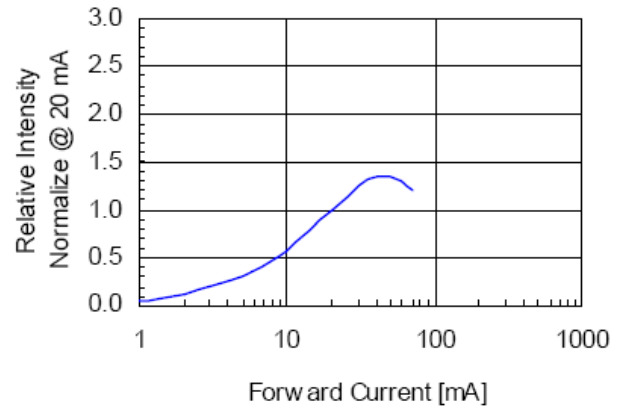


Fig 3. Forward Voltage vs. Temperature

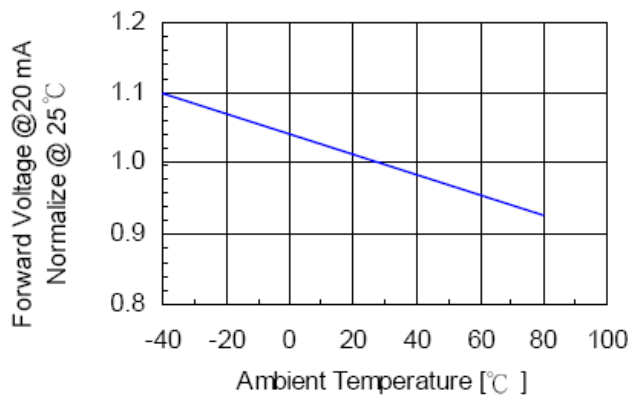


Fig 4. Relative Intensity vs. Temperature

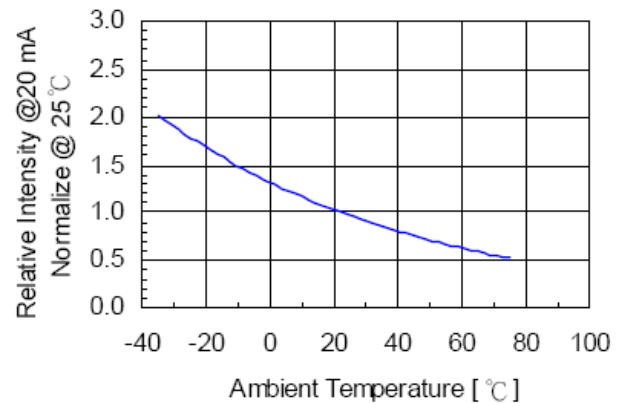
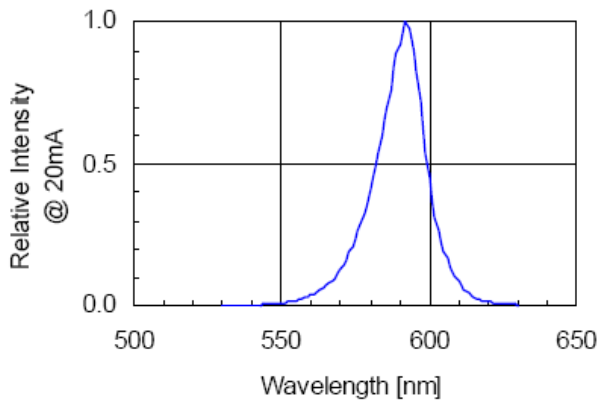
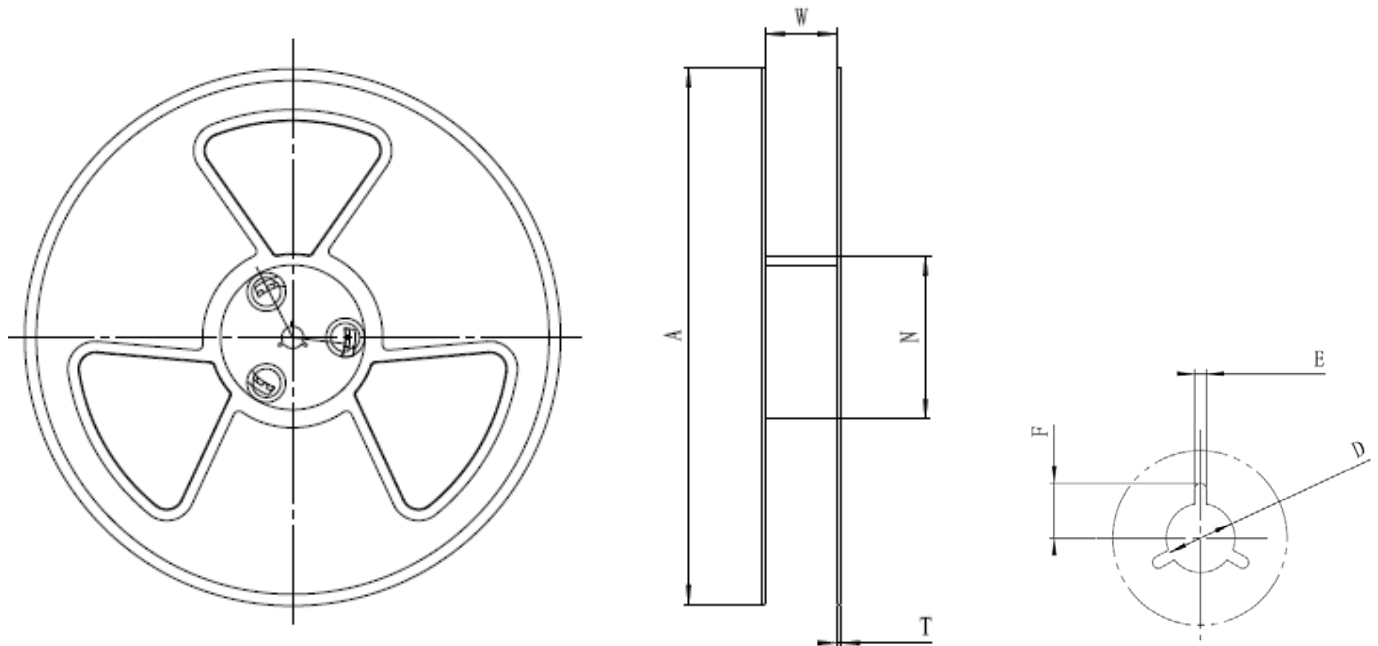


Fig 5. Relative Intensity vs. Wavelength

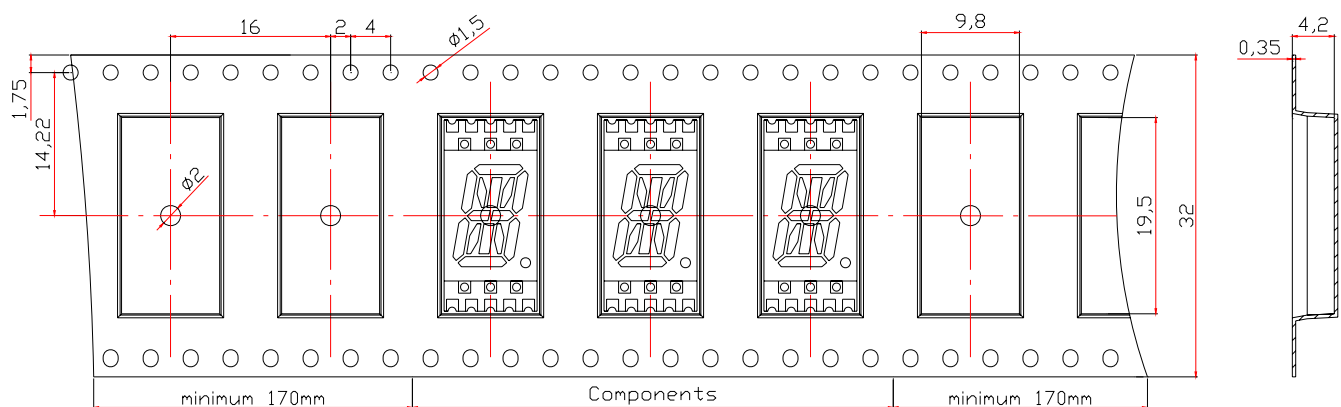


■ Packing Reel Dimensions(mm):

W	A	N	T	E	F	D
32.5	330	100	1.8	2.1	10.75	13.5
± 0.4	± 0.5	± 0.3	± 0.2	± 0.3	± 0.3	+0.5 -0.2

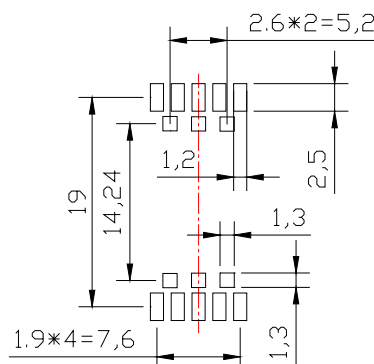


■ Dimensions of Tape (Unit: mm)



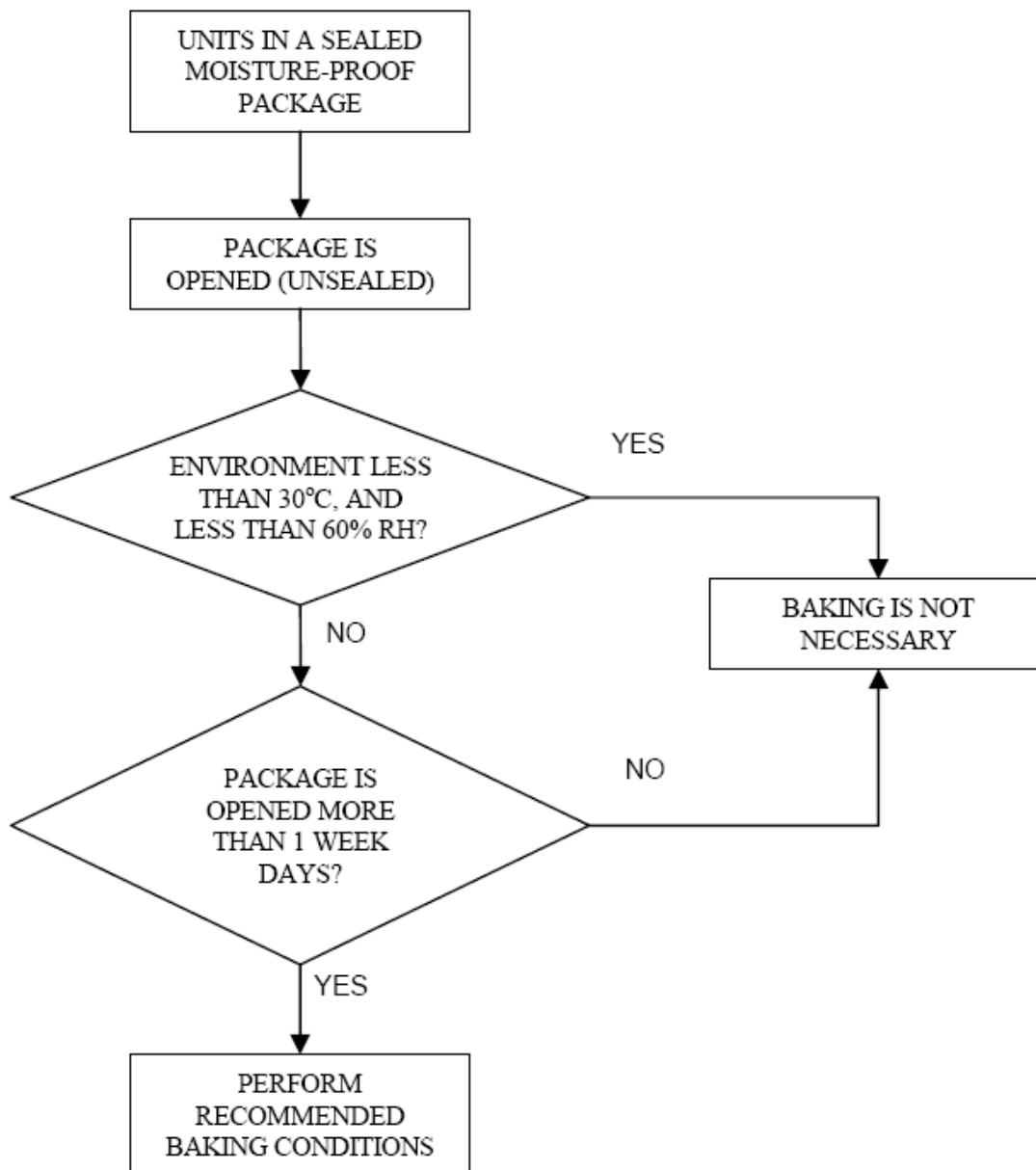
■ One Reel contained 1000 PCS products:

■ Recommended Soldering Pattern:



■ Moisture Proof Packaging:

All N/D SMD displays are shipped in moisture proof package. The displays should be stored at 30°C or less and 60% RH or less. Once the package opened, moisture absorption begins.



■ Baking Conditions:

If the parts not stored in dry conditions, they must be baked before re-flow to prevent damage to the parts.

Package	Temperature	Time
In Reel	60 °C	≥ 48hours
In Bulk	100 °C	≥ 4hours
	125 °C	≥ 2hours

■ Baking should only be done once.