World Components Network Service Ltd

Customer Name:	
Date:	2019-6-25
Part No:	WCN2S-1040SO-A2
Product Group Description:	LED Display
Customer Part No:	
Approval Date:	

Customer Confirmation	Approved by	Checked by	Prepared By
	William 2019-6-25	Athena 2019-6-25	Zhang 2019-6-25

恒盛源光电科技(深圳)有限公司 开发部 WCN

Country of Origin: China

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RoHS

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REVISION RECORD

MARKER	Matter for revision / Reason for revision	SHEET	DTAE	MAKER	APPOVED SIGN	
A0	P# WCN2S-1040SO-A2 / New Version issued	Whole Spec	2019-6-25	Zhang	Athena	William

1. Type No./Manufacture's Name

WCN2S-1040SO-A2 / World Components Network Service Ltd.

2. Features:

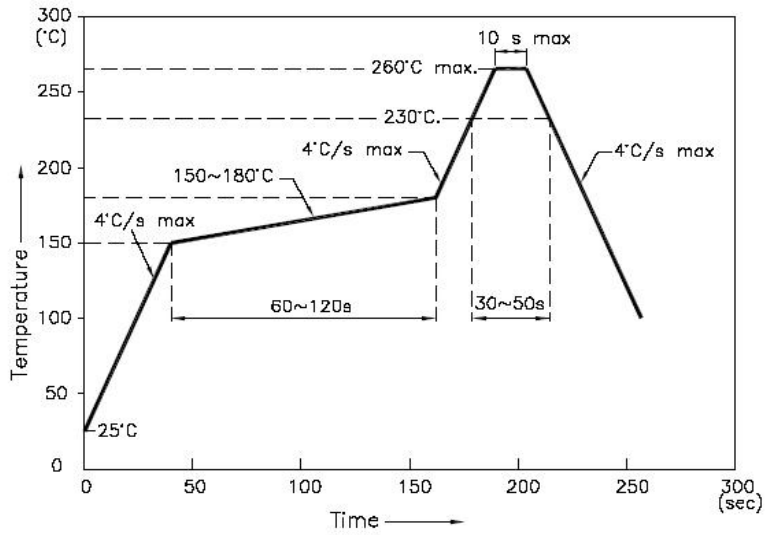
- **High Reliability**
- **Low Power Requirement**
- **Easy Assembly**

3. Faction: Display Digit Characteristic

4. Soldering Conditions: Soldering Temp. 260±5 ℃, Soldering Time. 3~5 sec.

Soldering Power <30 W.

5. Re-flow Temp/Time



NOTES:

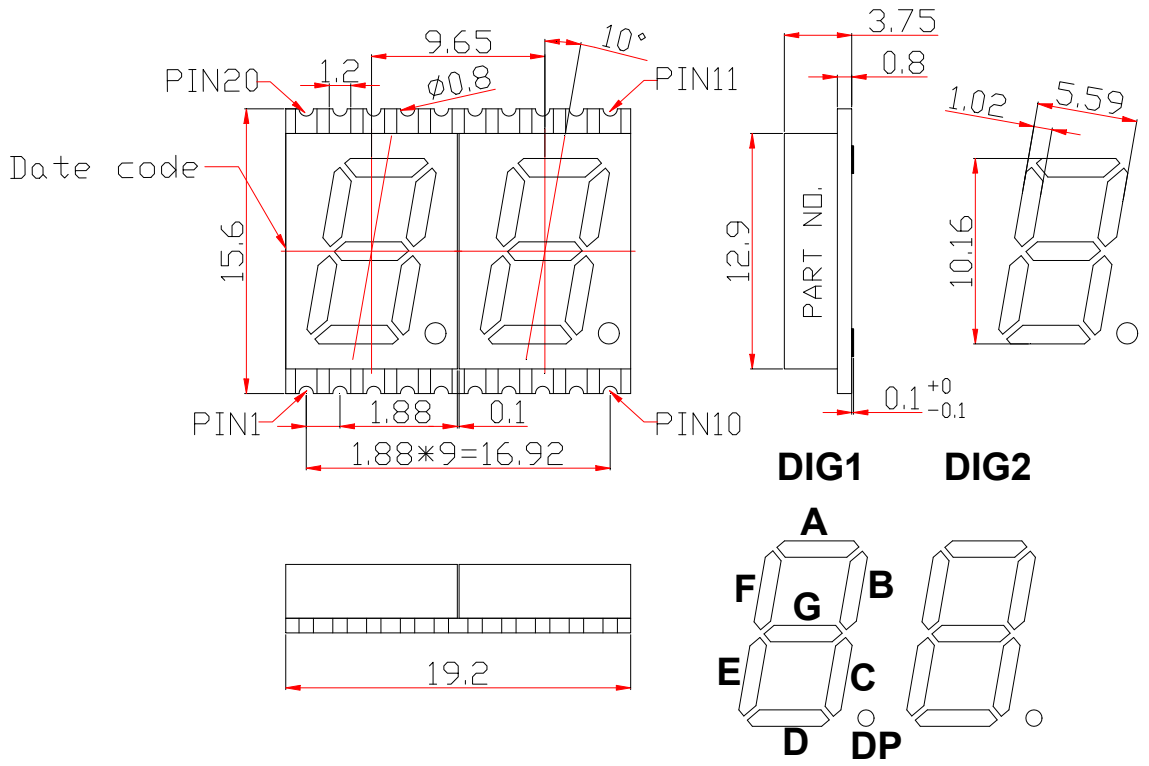
5.1. We recommend the re-flow temperature 245℃(±5℃).the maximum soldering temperature should be limited to 260℃.

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:

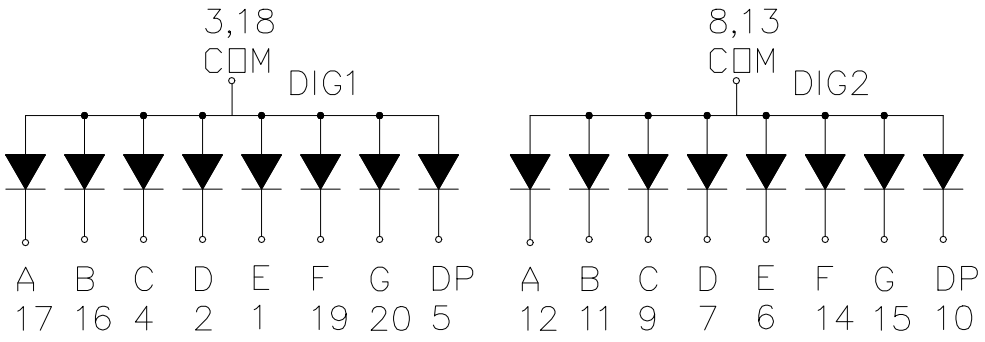
- **Two Digit LED Display**
- **Digit Height:10.16mm(0.4″)**
- **Gray Face and Milky Segment**
- **Color: White**

■ Outer Dimension:



Notes: Unless otherwise stated, the tolerance is ±0.25mm.

■Circuit Diagram:



■Pin Connection:

PIN NO.	CONNECTION	PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Cathode E1	8	Common Anode dig2	15	Cathode G2
2	Cathode D1	9	Cathode C2	16	Cathode B1
3	Common Anode dig1	10	Cathode dp2	17	Cathode A1
4	Cathode C1	11	Cathode B2	18	Common Anode dig1
5	Cathode DP1	12	Cathode A2	19	Cathode F1
6	Cathode E2	13	Common Anode dig2	20	Cathode G1
7	Cathode D2	14	Cathode F2	/	/

■ ABSOLUTE MAXIMUM RATINGS AT TA=25℃

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	P_d	—	Orange	65	mW
Forward Current Per Segment	I_F	—	Orange	25	mA
Peak Forward Current Per Segment	I_{FP}	1/10 Duty 1KHz	Orange	100	mA
Reverse Voltage Per Segment	V_R	—	Orange	5	V
Operating Temperature Range	Topr	—	—	-40～+85	℃
Storage Temperature Range	Tstg	—	—	-40～+85	℃

■ Electrical/Optical Characteristics Rating(Ta=25℃)

Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	V_F	I_F=20mA	Per Chip	1.80	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	7850	10501	ucd
Wave Length	λ_P	I_F=20mA	Per Chip	—	606	—	nm
	λ_D			—	605	—	
Spectral Line Half Width	$\triangle\lambda$	I_F=20mA	Per Chip	—	—	20	nm

■Luminous Intensity Sorting: (Luminous intensity tolerance :+/-10%)

Rank	Symbol	Condition	Min	Max	Unit
N	N	I_F=10mA	6101	7200	μcd
O	O	I_F=10mA	7201	8500	μcd
P	P	I_F=10mA	8501	10500	μcd

■ Typical Elector-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

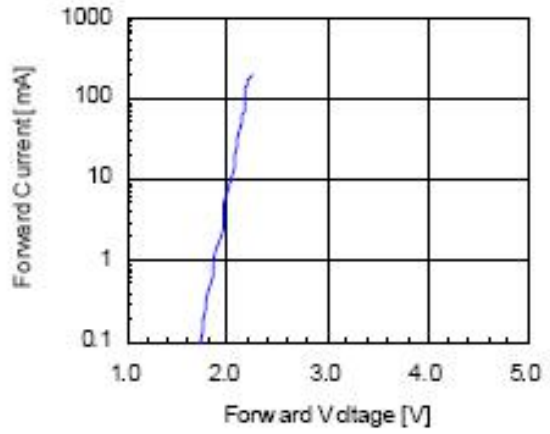


Fig 2. Relative Intensity vs. Forward Current

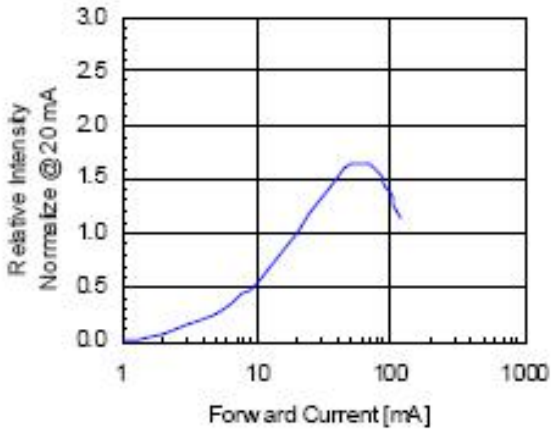


Fig 3. Forward Voltage vs. Temperature

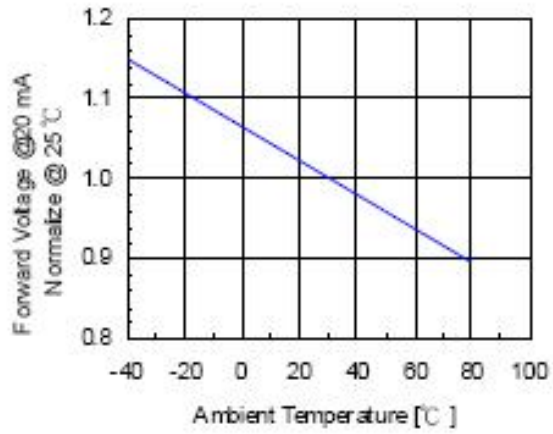


Fig 4. Relative Intensity vs. Temperature

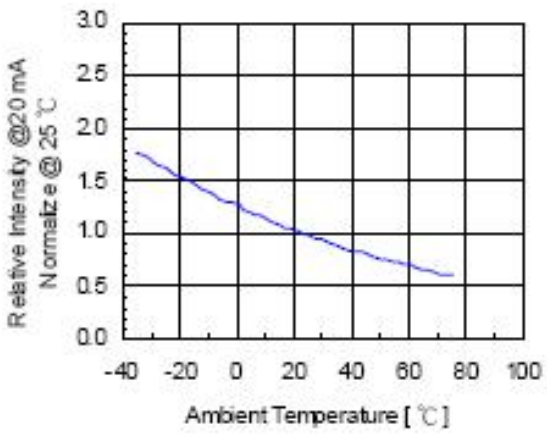
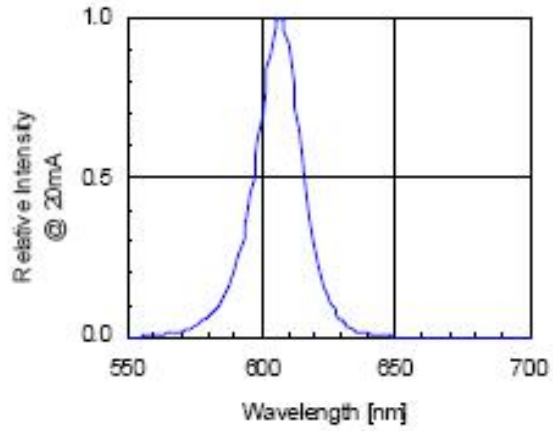
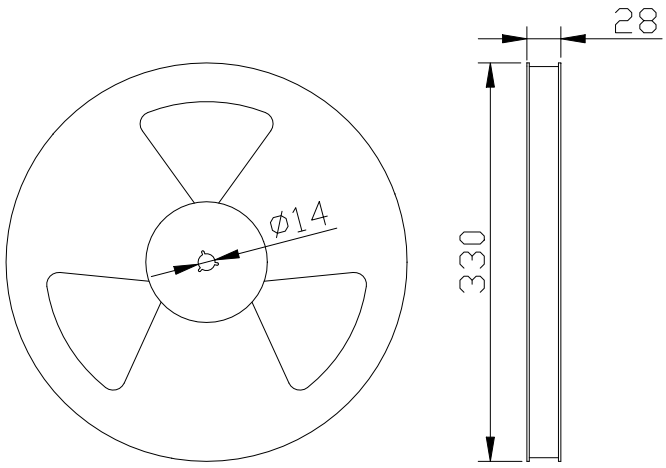


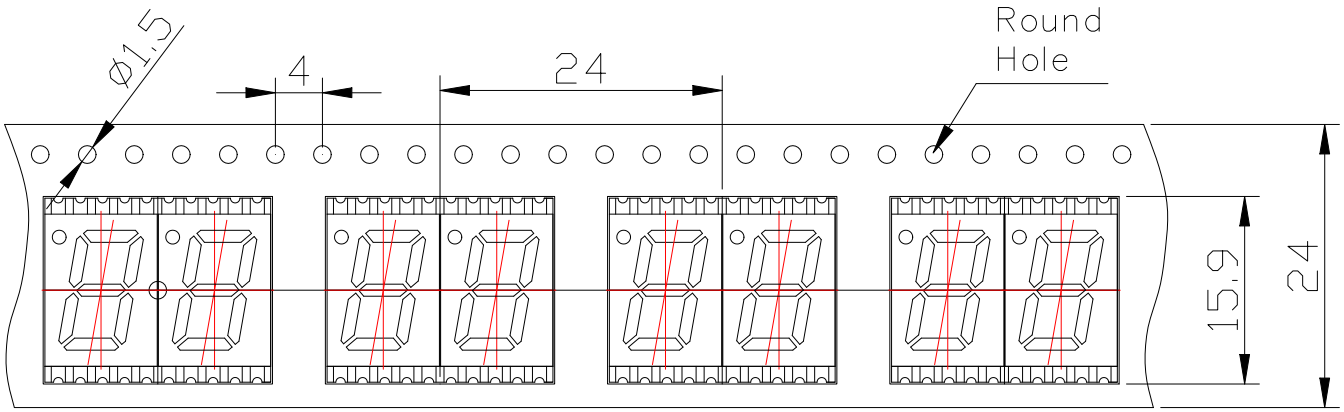
Fig 5. Relative Intensity vs. Wavelength



■ **Packing Reel Dimensions(mm)：**

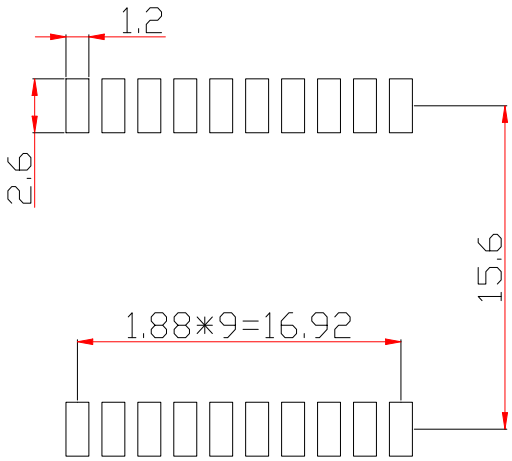


■ **Dimensions of Tape (Unit: mm)**



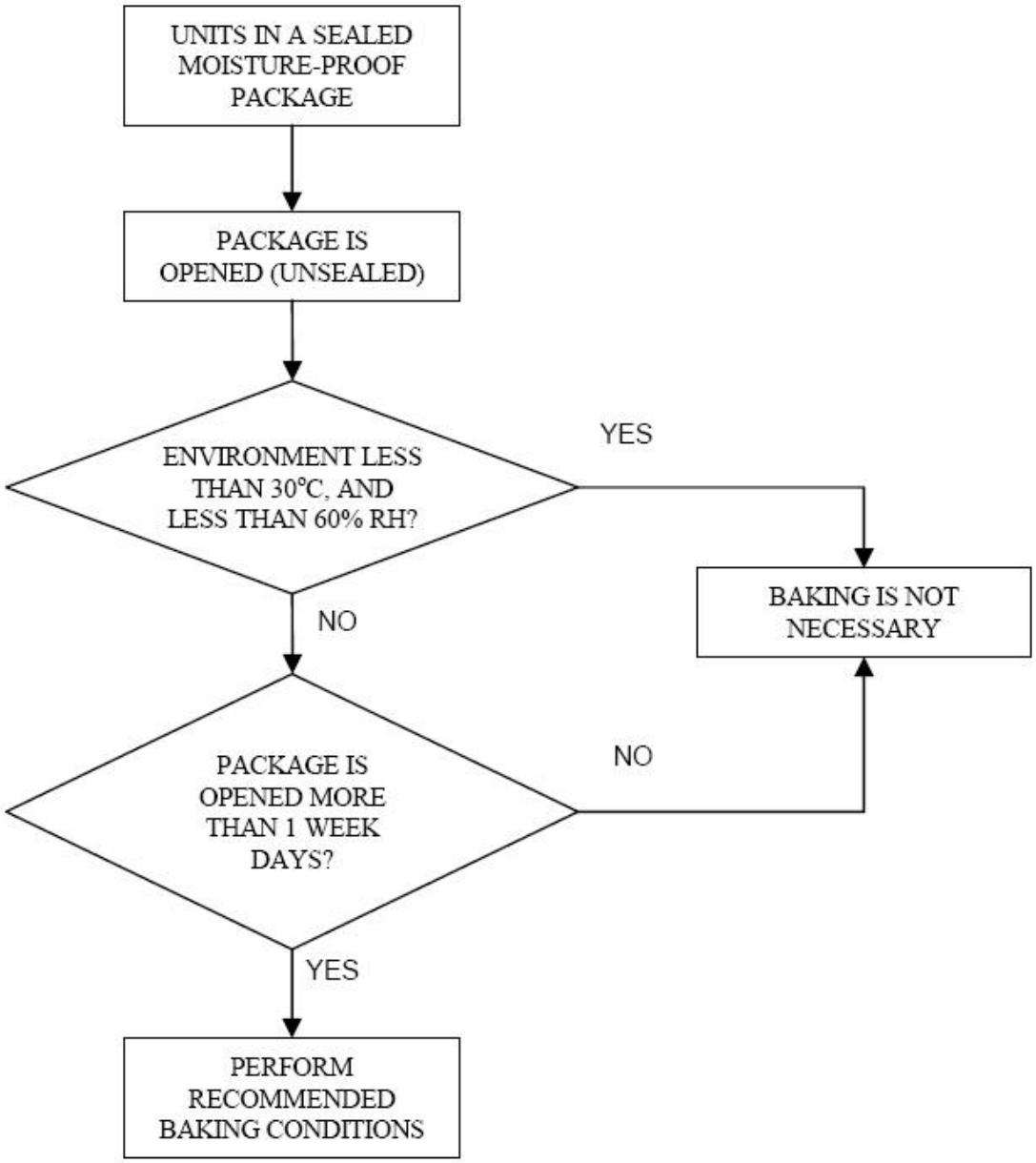
■ **One Reel contained 600 PCS products:**

■ **Recommended Soldering Pattern:**



■ **Moisture Proof Packaging:**

All N/D SMD displays are shipped in moisture proof package. The displays should be stored at 30℃ 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.**