

WCN Opto Group Co., Limited**Customer Name:****Date:**

2023-2-8

Part No:

WCN3S-1020WW-C2

**Product Group
Description:**

LED Display

Customer Part No:**Approval Date:****Customer
Confirmation****Approved by**William
2023-2-8**Checked by**Athena
2023-2-8**Prepared By**Zhang
2023-2-8**Country of Origin: China****World Components Network Service Ltd****5th Floor,Block A-2,Xuxingda Ind Zone
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REVISION RECORD

MARKER	Matter for revision	SHEET	DTAE	MAKER	APPOVED SIGN	
	Reason for revision					
A0	P# WCN3S-1020WW-C2	Whole Spec	2023-2-8	Zhang	Athena	William
	New Version issued					

1. Type No./Manufacture's Name

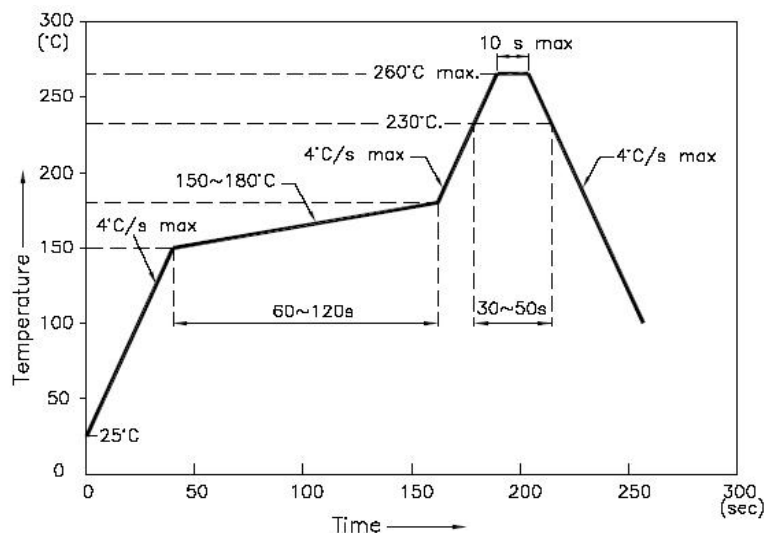
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2. Features:

- 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:**

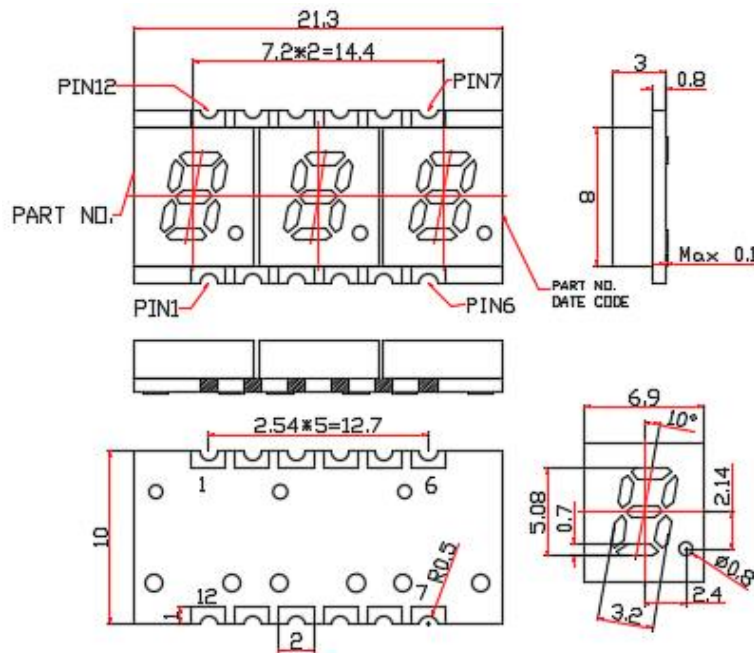
5.1. We recommend the re-flow temperature $245^{\circ}\text{C}(\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .

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:

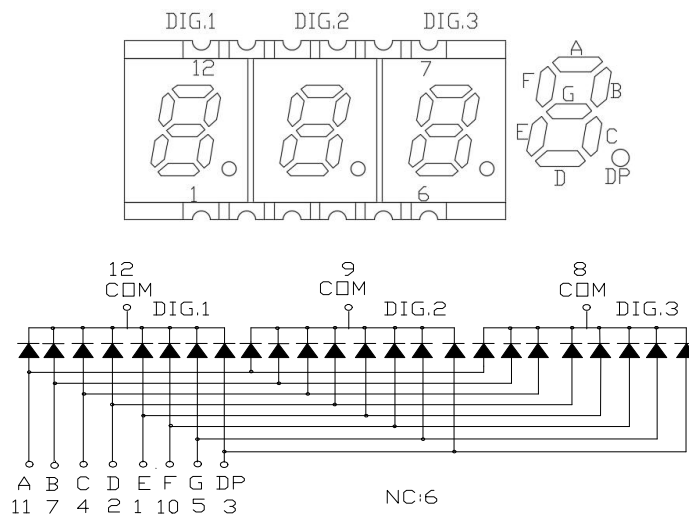
- Three LED Display
- Digit Height: 5.08mm(0.20")
- Gray Face and Milky Segment
- Color: White

Outer Dimension:



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

Circuit Diagram:



Pin Connection:

PIN NO.	CONNECTION	PIN NO.	CONNECTION CONNECTION
1	Anode E	7	Anode B
2	Anode D	8	Common Cathode Dig.3
3	Anode DP	9	Common Cathode Dig.2
4	Anode C	10	Anode F
5	Anode G	11	Anode A
6	NC	12	Common Cathode Dig.1

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■ ABSOLUTE MAXIMUM RATINGS AT TA=25°C

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	Pd	—	White	92.5	mW
Forward Current Per Segment	IF	—	White	25	mA
Peak Forward Current Per Segment	IFP	1/10 Duty 1KHz	White	100	mA
Reverse Voltage Per Segment	VR	—	White	5	V
Operating Temperature Range	Topr	—	—	-40~+105	°C
Storage Temperature Range	Tstg	—	—	-40~+105	°C

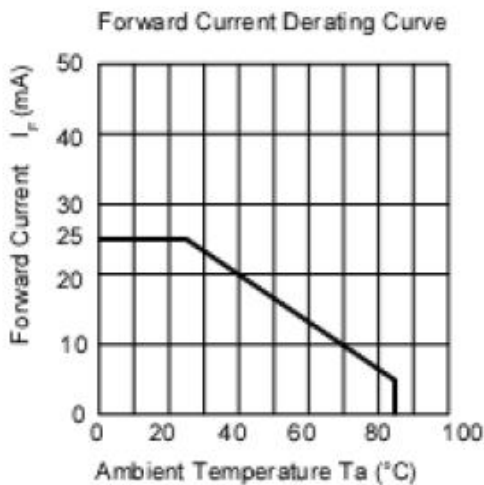
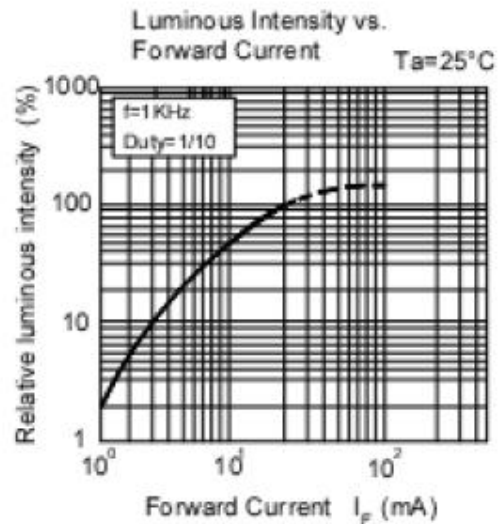
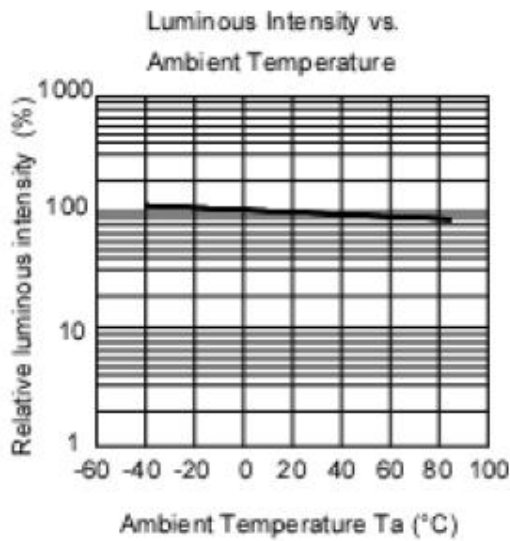
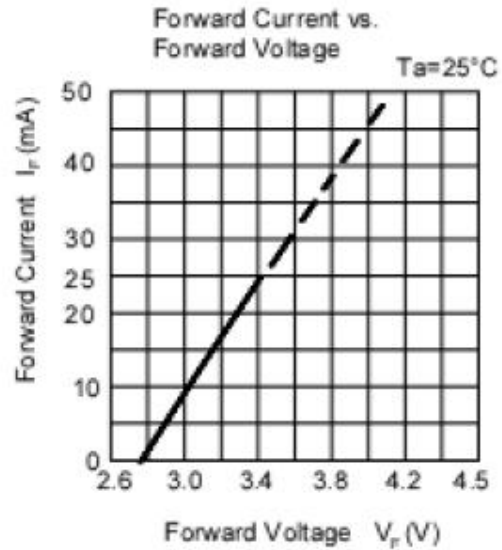
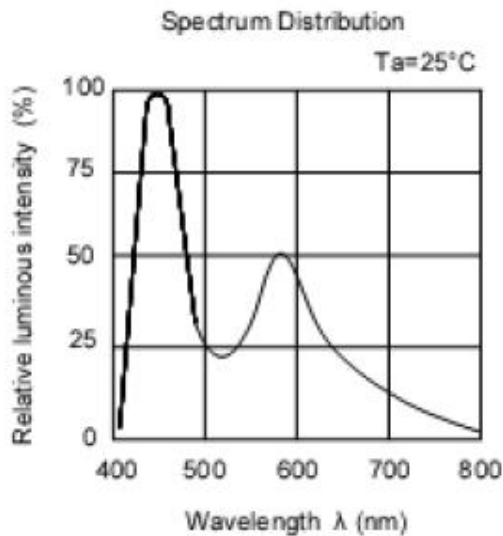
■ Electrical/Optical Characteristics Rating(Ta=25°C)

Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	VF	IF=20mA	Per Chip	2.6	3.3	3.7	V
Reverse Current	IR	VR=5V	Per Chip	—	—	100	μA
Luminous Intensity	IV	IF=10mA	Per Chip	37	47	58	mcd
CIE Coordinate	X	IF=20mA	Per Chip	—	0.27	—	nm
	Y			—	0.28	—	
Luminous Intensity Matching Ratio (Segment To Segment)	Iv-m	IF=10mA				1.2:1	

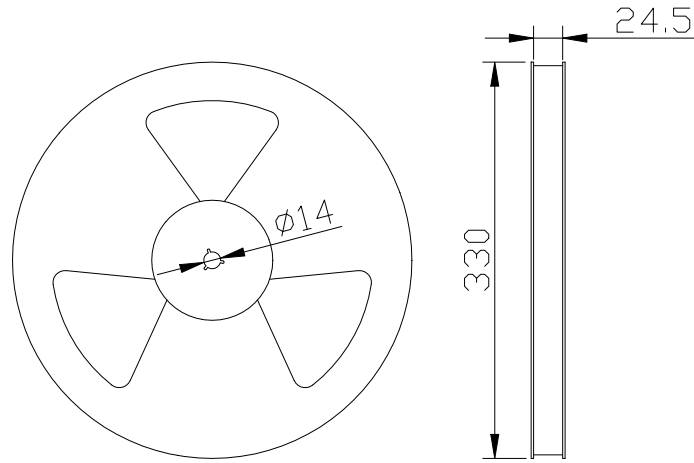
■ Luminous Intensity Sorting: (Luminous intensity tolerance :+/-10%)

Rank	Symbol	Condition	Min	Max	Unit
X	X	IF=10mA	37	43	mcd
Y	Y	IF=10mA	43	50.0	mcd
Z	Z	IF=10mA	50	58.0	mcd

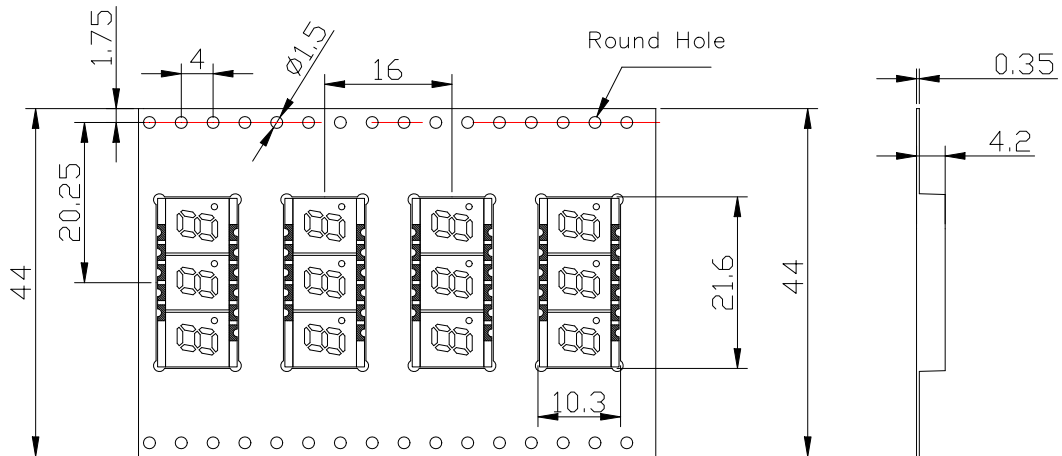
■ **Typical Optical-Electronic Characteristic Curves**



■ Packing Reel Dimensions(mm):

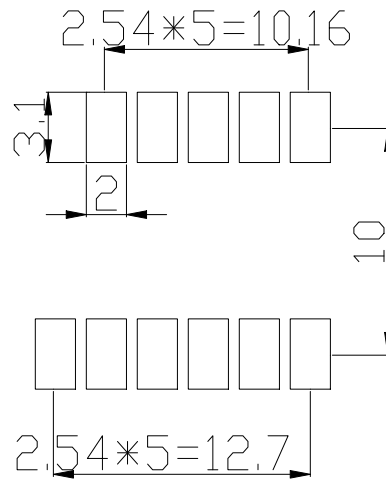


■ Dimensions of Tape (Unit: mm)



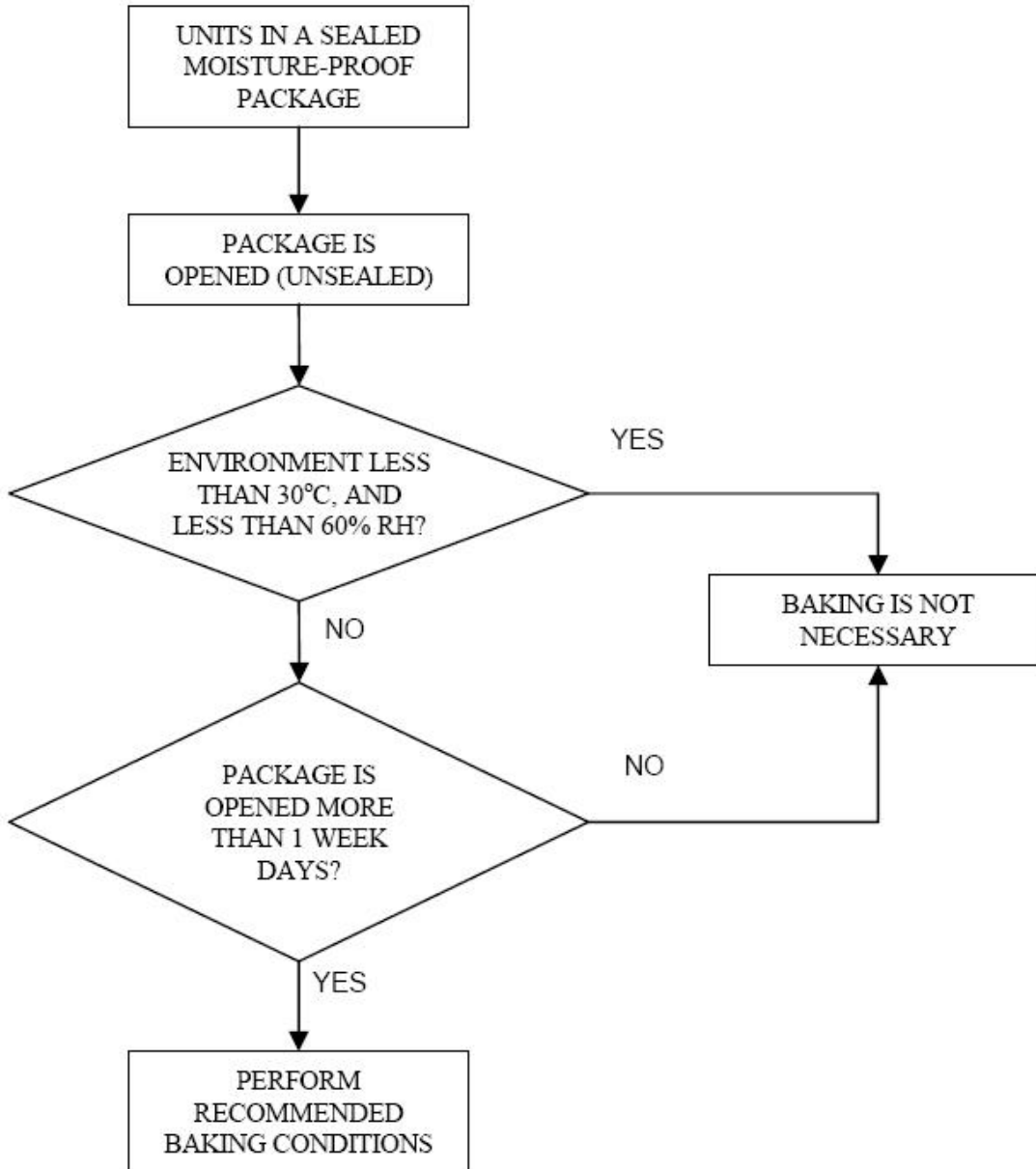
■ One Reel contained 1000 PCS products:

■ 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.