

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

2016-03-08

Part No:

WCN1S-1020WW-C1

**Product Group
Description:**

LED Display

Customer Part No:**Approval Date:****Customer
Confirmation****Approved by****Checked by**Athena
2016-03-08**Prepared By**Fei
2016-03-08

Country of Origin: China

World Components Network Service Ltd**5th Floor,Block A-2,Xuxingda Ind Zone
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WCN Opto Group Co., Limited

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REVISION RECORD

MARKER	Matter for revision	SHEET	DTAE	MAKER	APPOVED SIGN	
	Reason for revision					
A0	P# WCN1S-1020WW-C1	Whole Spec	2016-03-08	Fei	Athena	
	New Version issued					

1. Type No./Manufacture's Name

WCN1S-1020WW-C1 / World Components Network Service Ltd.

2. Features:

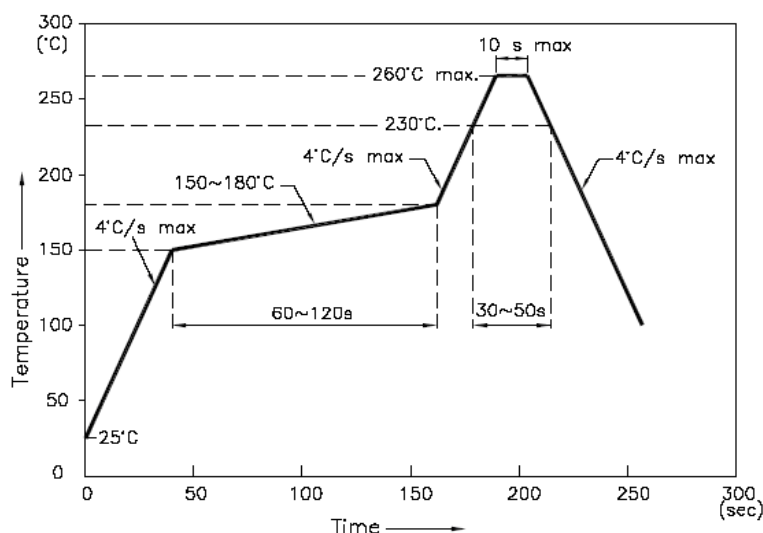
- High Reliability
- Low Power Requirement
- Easy Assembly

3. Faction: Display Digit Characteristic

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

Soldering Power <30 W.

5. Re-flow Temp/Time



NOTES:

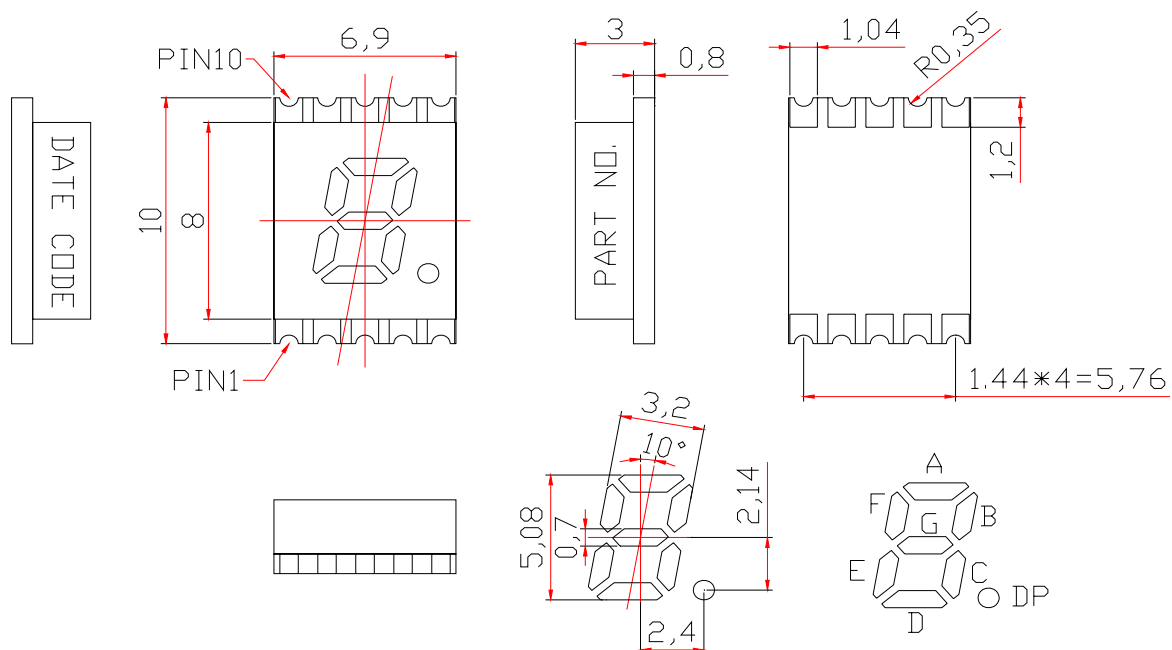
5.1. We recommend the re-flow temperature $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .

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:

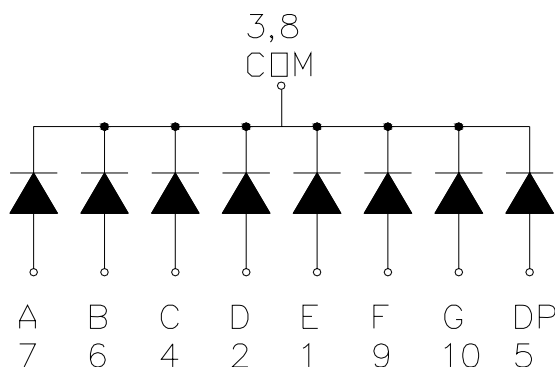
- Single Digit LED Display
- Digit Height: 5.08mm (0.20")
- Gray Face and Milky Segment
- Color: White

Outer Dimension:



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

Circuit Diagram:



Pin Connection:

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



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ABSOLUTE MAXIMUM RATINGS AT TA=25°C

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	P _d	—	White	92.5	mW
Forward Current Per Segment	I _F	—	White	25	mA
Peak Forward Current Per Segment	I _{FP}	1/10 Duty 1KHz	White	100	mA
Reverse Voltage Per Segment	V _R	—	White	5	V
Operating Temperature Range	T _{opr}	—	—	-40~+105	°C
Storage Temperature Range	T _{stg}	—	—	-40~+105	°C

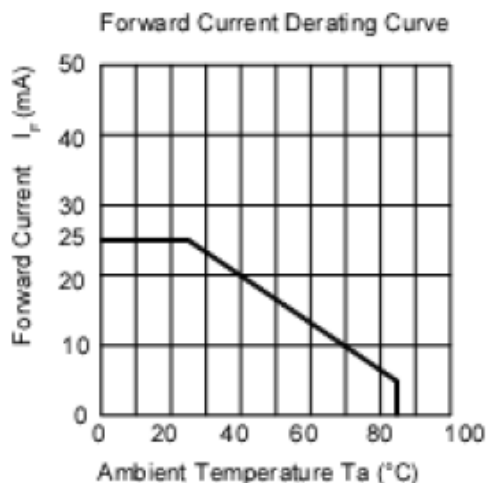
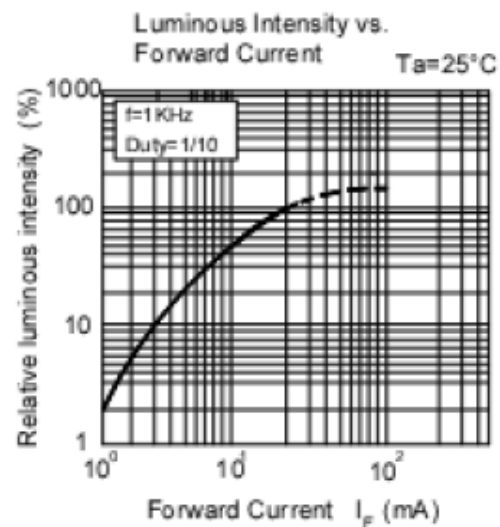
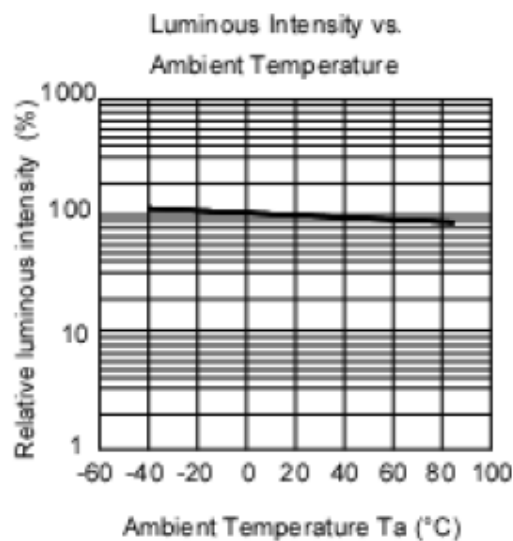
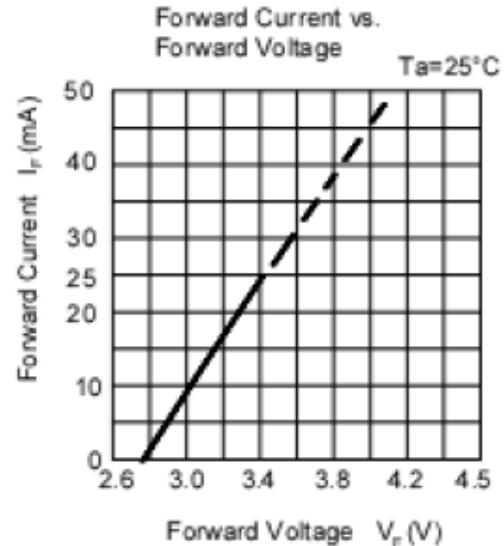
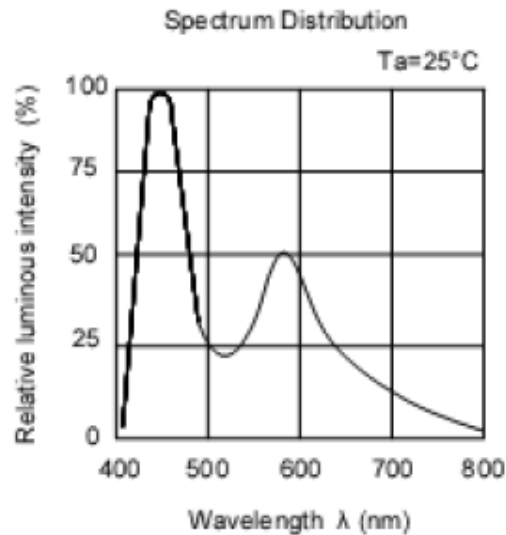
Electrical/Optical Characteristics Rating(Ta=25°C)

Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	V _F	I _F =20mA	Per Chip	2.6	3.3	3.7	V
Reverse Current	I _R	V _R =5V	Per Chip	—	—	100	μA
Luminous Intensity	I _V	I _F =10mA	Per Chip	37.001	55	78.5	mcd
CIE Coordinate	X	I _F =20mA	Per Chip	—	0.30	—	nm
	Y			—	0.28	—	
Luminous Intensity Matching Ratio (Segment To Segment)	I _{v-m}	I _F =10mA				1.2:1	

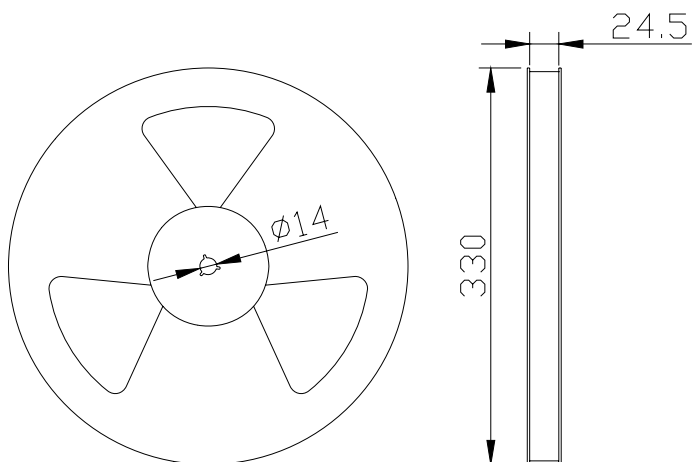
Luminous Intensity Sorting: (Luminous intensity tolerance :+/-10%)

Rank	Symbol	Condition	Min	Max	Unit
X	X	I _F =10mA	37.001	43.0	mcd
Y	Y	I _F =10mA	43.001	50.0	mcd
Z	Z	I _F =10mA	50.001	58.0	mcd
Z1	Z1	I _F =10mA	58.001	68.0	mcd
Z2	Z2	I _F =10mA	68.001	78.5	mcd

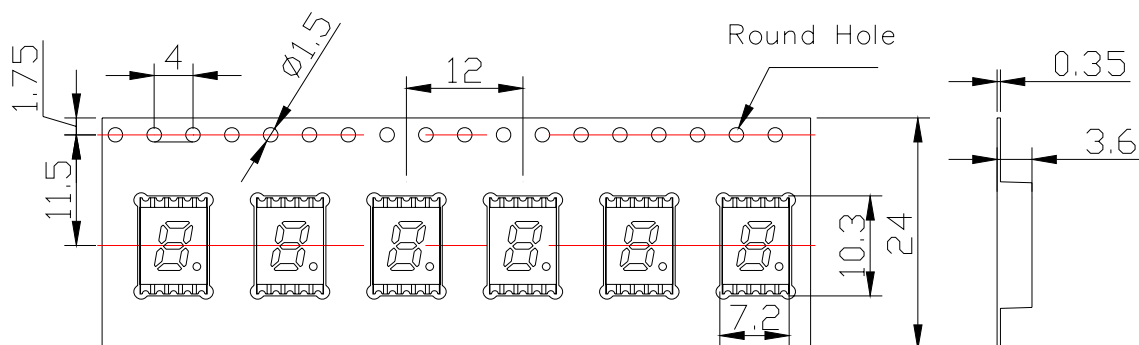
Typical Optical-Electronic Characteristic Curves



■ Packing Reel Dimensions(mm):

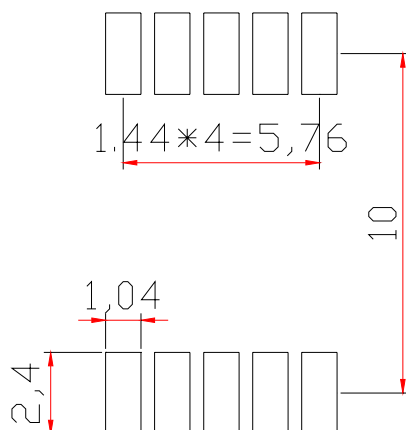


■ Dimensions of Tape (Unit: mm)



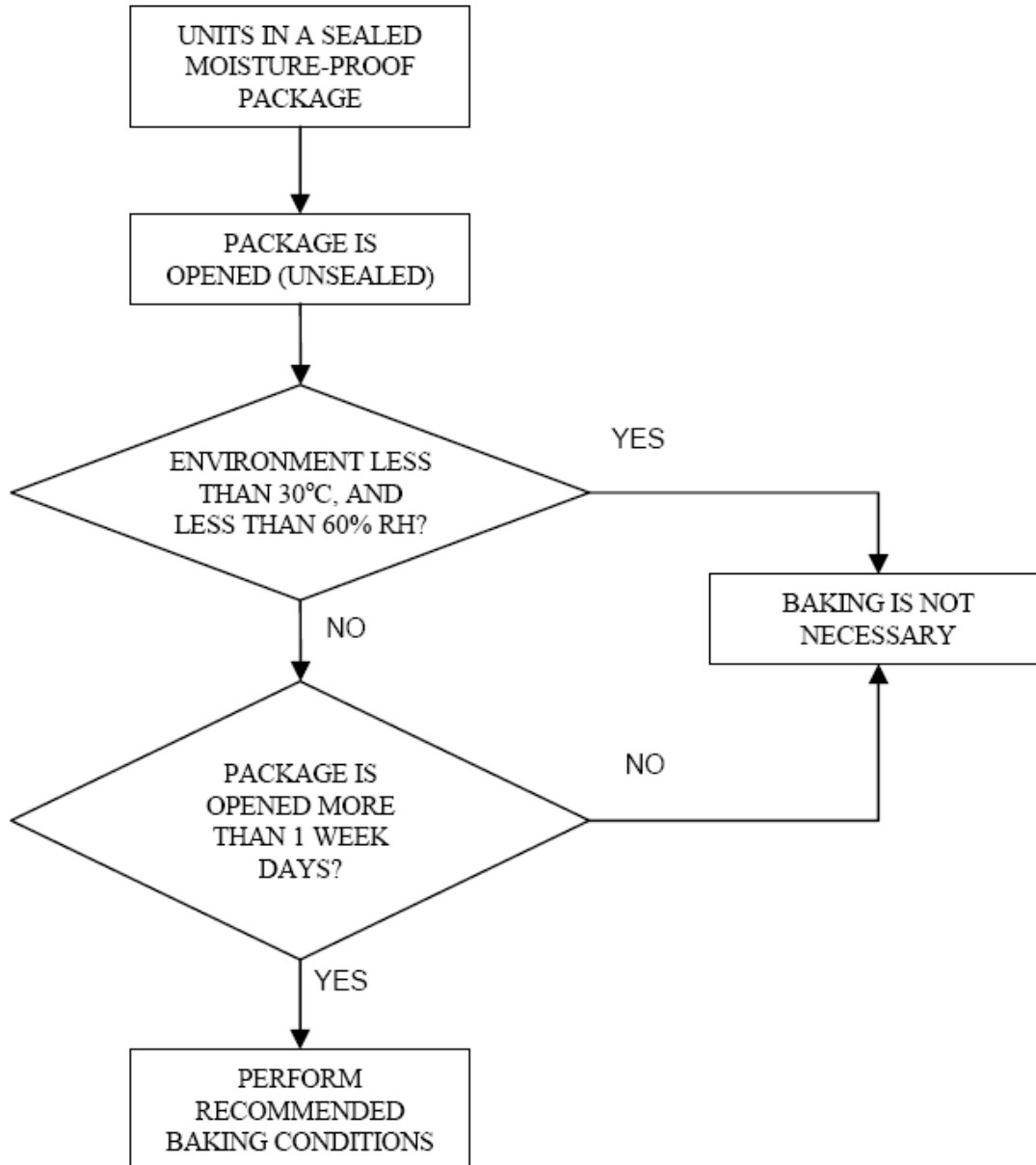
■ One Reel contained 1480 PCS products:

■ 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.