

World Components Network Service Ltd

Customer Name:**Date:**

2016-2-20

Part No:

WCN1S-1039WW-A1

**Product Group
Description:**

LED Display

Customer Part No:**Approval Date:****Customer
Confirmation****Approved by****Checked by**Athena
2016-2-20**Prepared By**Fei
2016-2-20**Country of Origin: China****World Components Network Service Ltd**

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REVISION RECORD

MARKER	Matter for revision	SHEET	DTAE	MAKER	APPOVED SIGN	
	Reason for revision					
A0	P# WCN1S-1039WW-A1	Whole Spec	2016-2-20	Fei	Athena	
	New Version issued					

1. Type No./Manufacture's Name

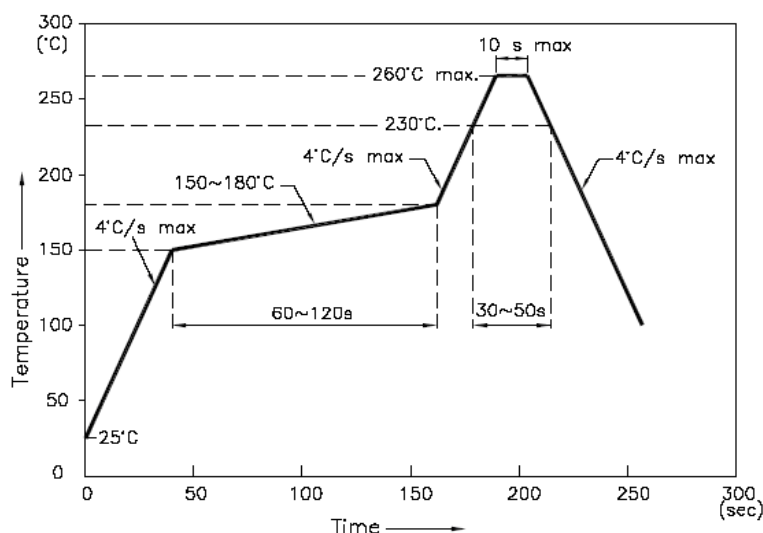
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2. Features:

- 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:**

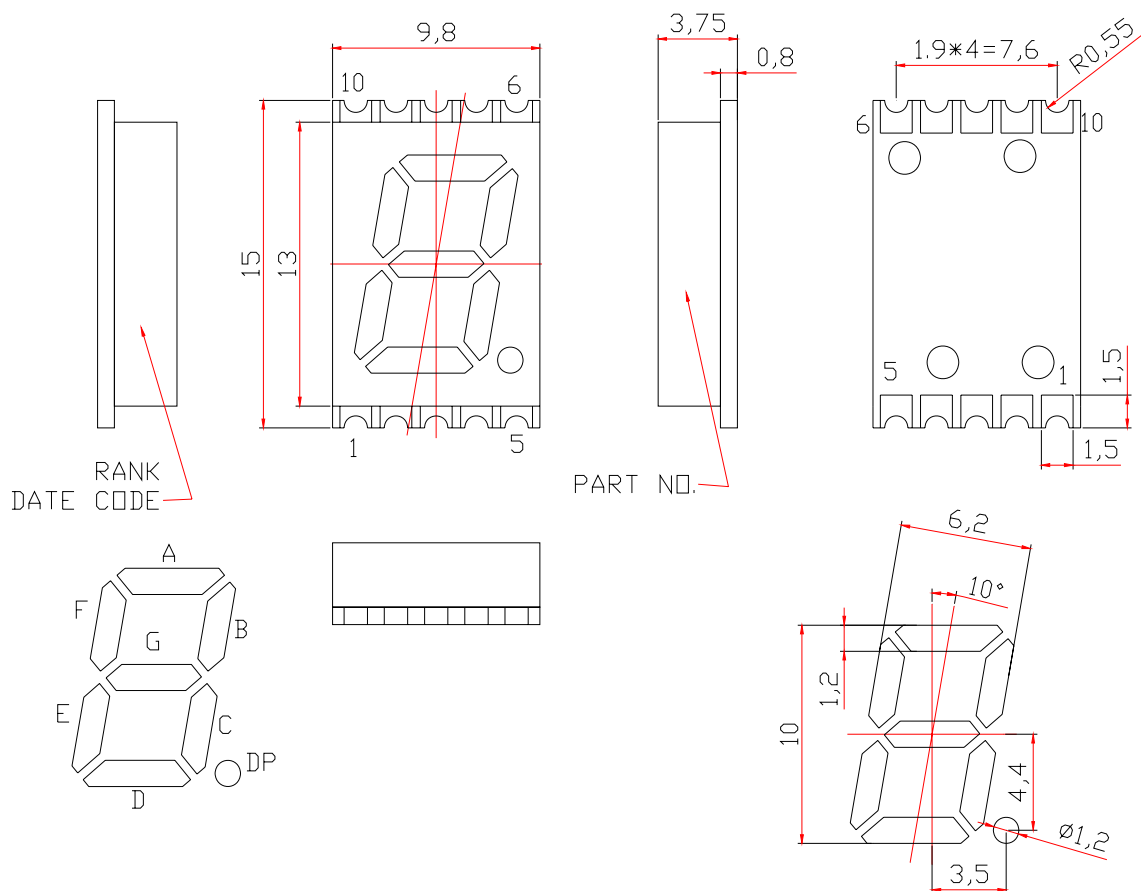
5.1. We recommend the re-flow temperature $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .

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:

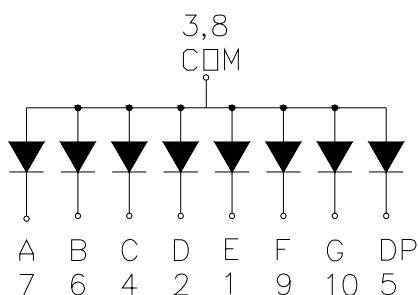
- Single Digit LED Display
- Digit Height: 10.0mm (0.39")
- Gray Face and Milky Segment
- Color: White

■ **Outer Dimension:**



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

■ **Circuit Diagram:**



■ **Pin Connection:**

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Cathode E	6	Cathode B
2	Cathode D	7	Cathode A
3	Common Anode	8	Common Anode
4	Cathode C	9	Cathode F
5	Cathode DP	10	Cathode 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	300	400	500	mcd
CIE Coordinate	X	I _F =20mA	Per Chip	—	0.2615	—	
	Y			—	0.2625	—	
Luminous Intensity Matching Ratio (Segment To Segment)	I _{v-m}	I _F =10mA				1.2:1	

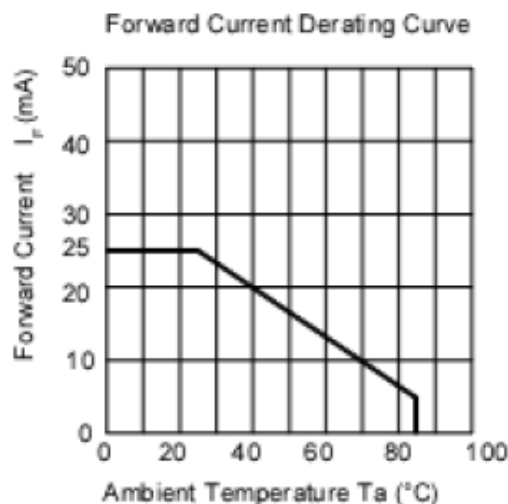
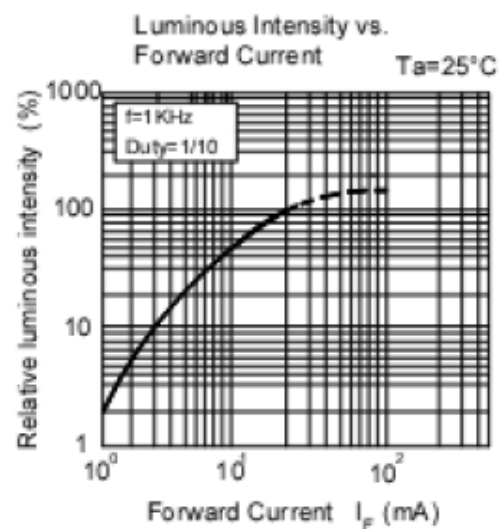
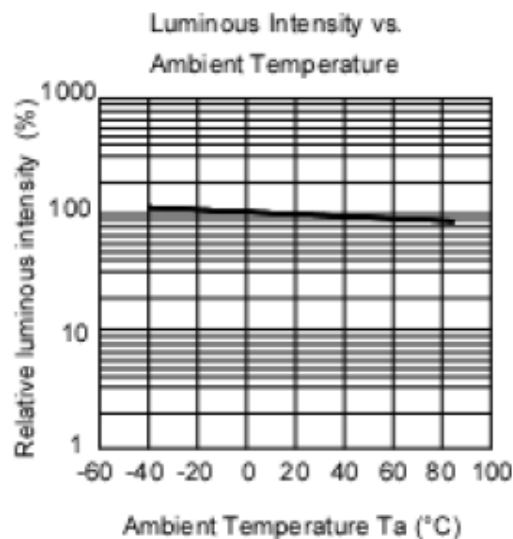
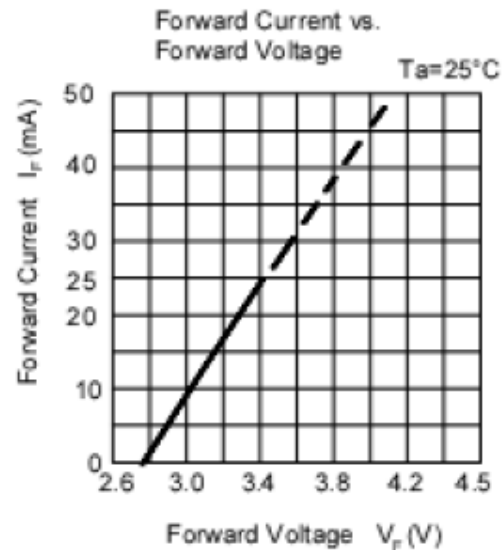
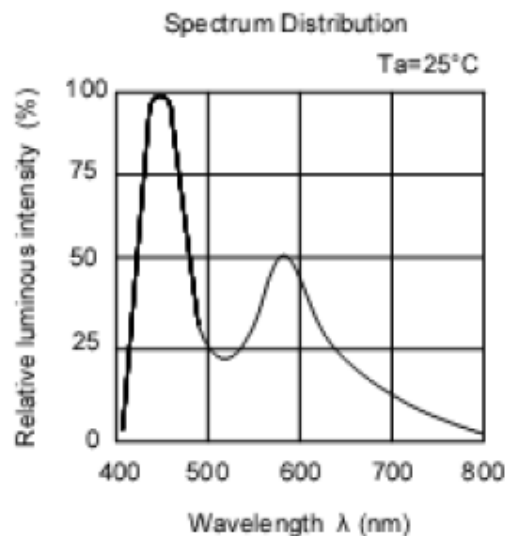
■ Luminous Intensity Sorting: (Luminous intensity tolerance :+/-10%)

Rank	Symbol	Condition	Min	Max	Unit
F	F	I _F =10mA	300	350	mcd
G	G	I _F =10mA	350	400	mcd
H	H	I _F =10mA	400	450	mcd
I	I	I _F =10mA	450	500	mcd

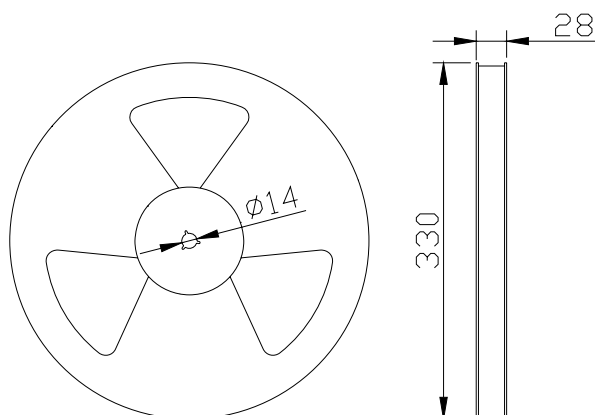
■ Hue Grade: I_F =10mA (Hue:+/-1nm)

Rank	CIE-X1	CIE-Y1	CIE-X2	CIE-Y2	CIE-X3	CIE-Y3	CIE-X4	CIE-Y4
1	0.2577	0.2544	0.2539	0.2563	0.2603	0.2663	0.2641	0.2644
2	0.2615	0.2525	0.2577	0.2544	0.2641	0.2644	0.2679	0.2625
3	0.2653	0.2506	0.2615	0.2525	0.2679	0.2625	0.2717	0.2606

Typical Optical-Electronic Characteristic Curves

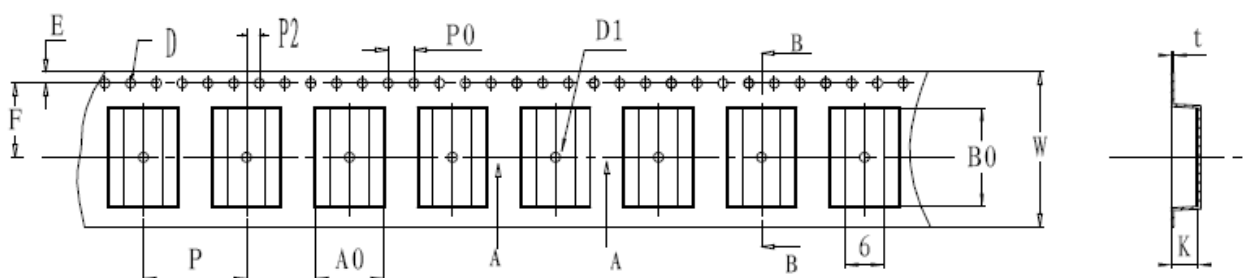


■ **Packing Reel Dimensions(mm):**



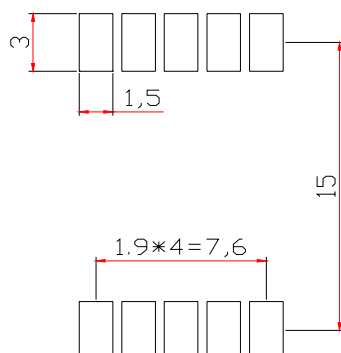
■ **Dimensions of Tape (Unit: mm)**

ITEM	W	A0	B0	K0	P	F	E	D	D1	P0	P2	t
DIM	24.0	10.5	15.3	4.4	16	11.5	1.75	1.50	1.50	4.00	2.00	0.35



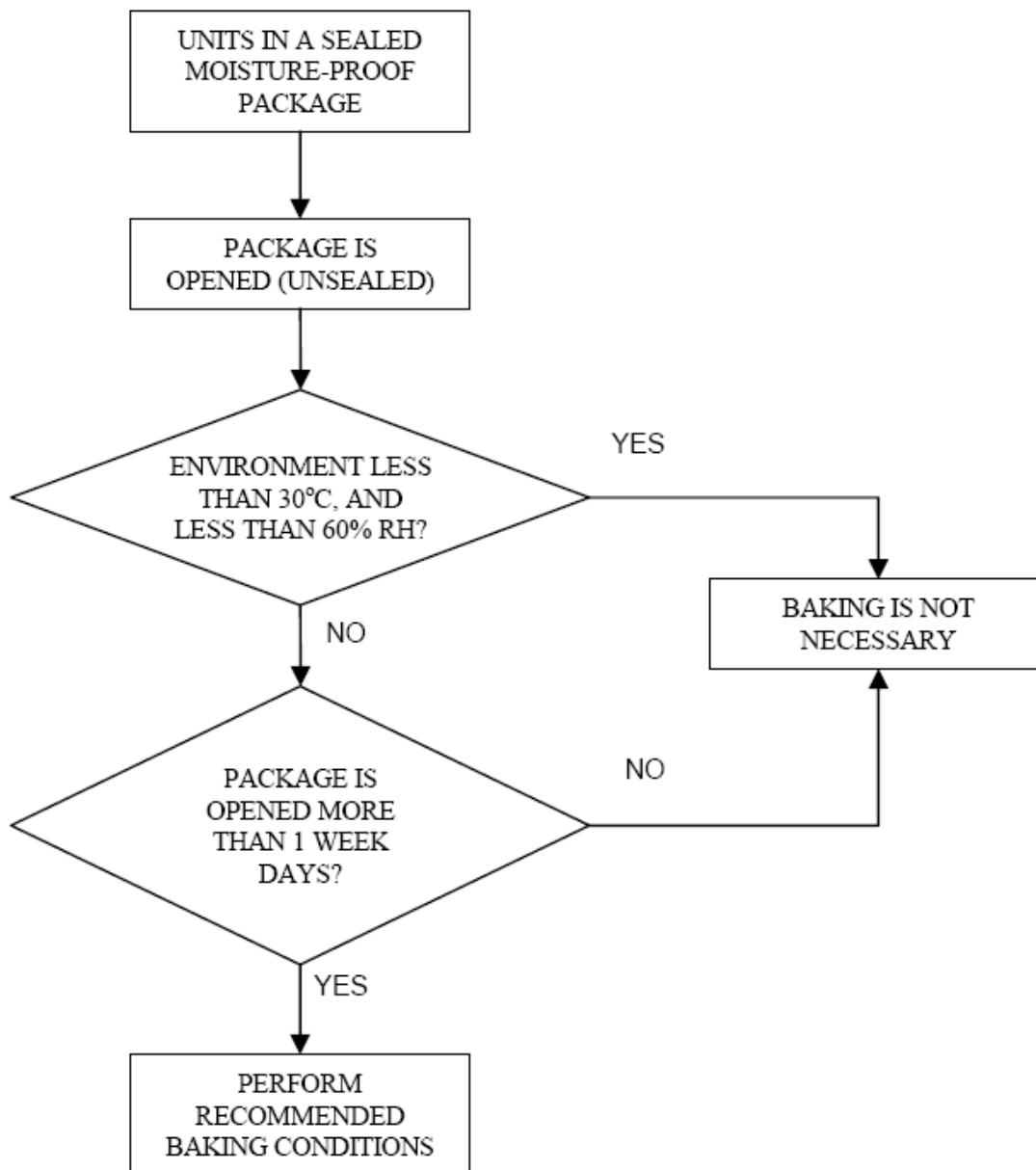
■ **One Reel contained 900 PCS products:**

■ **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.