



WCN Opto Group Co., Limited

Customer Name:

Date:

2023-9-26

Part No:

WCN1S-1056HO-A1

Product Group
Description:

LED Display

Customer Part No:

Approval Date:

Customer
Confirmation

Approved by

William
2023-9-26

Checked by

Athena
2023-9-26

Prepared By

Zhang
2023-9-26

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RoHS



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1. Type No./Manufacture's Name

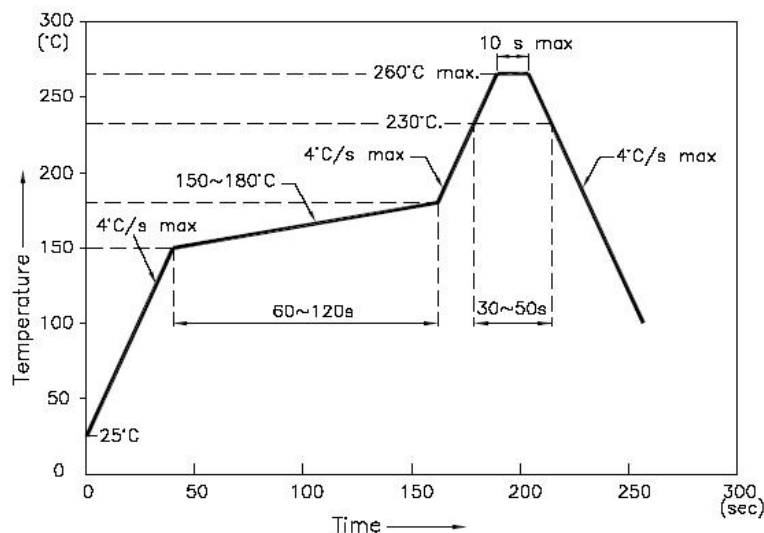
WCN1S-1056HO-A1 / WCN Opto Group Co., Limited.

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:**

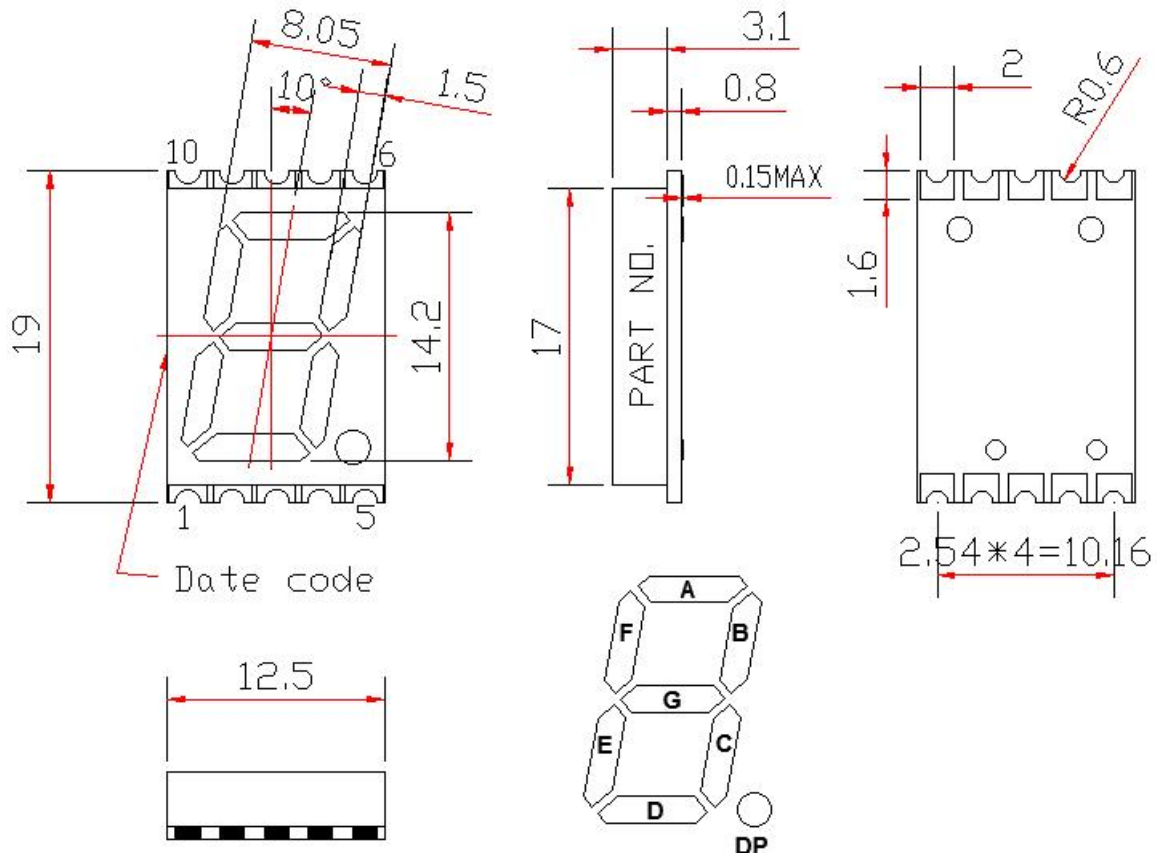
5.1. We recommend the re-flow temperature $245^{\circ}\text{C}(\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .

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:

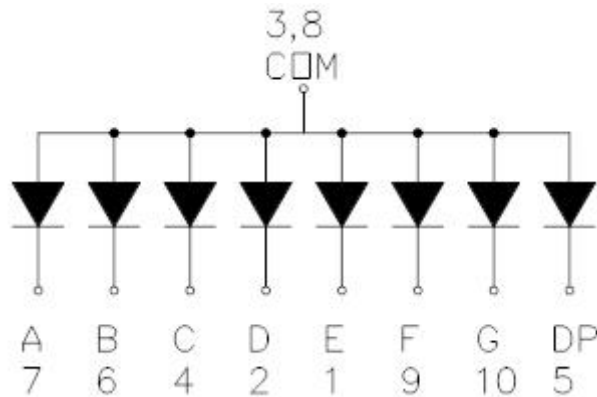
- Single Digit LED Display
- Digit Height: 14.2mm(0.56")
- Gray Face and Milky Segment
- Color: Orange

■ 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 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



WCN Opto Group Co., Limited

ABSOLUTE MAXIMUM RATINGS AT TA=25°C

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	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	1.8	2.0	2.6	V
Reverse Current	I_R	$V_R=5V$	Per Chip	—	—	100	μA
Luminous Intensity	I_V	$I_F=10mA$	Per Chip	7201	11500	18000	ucd
Wave Length	λ_P	$I_F=20mA$	Per Chip	—	606	—	nm
	λ_D			—	605	—	
Spectral Line Half Width	$\Delta \lambda$	$I_F=20mA$	Per Chip	—	—	20	nm

Typical Optical-Electronic Characteristic Curves

Fig 1. Forward Current vs. Forward Voltage

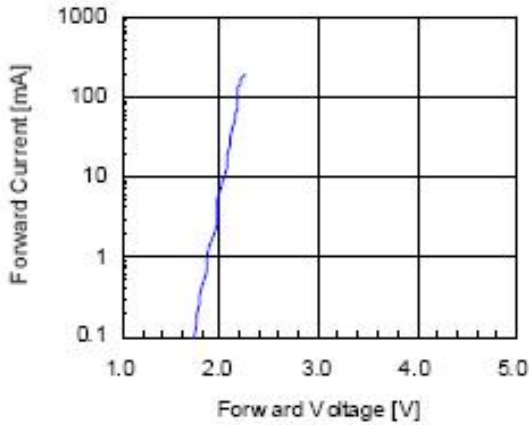


Fig 2. Relative Intensity vs. Forward Current

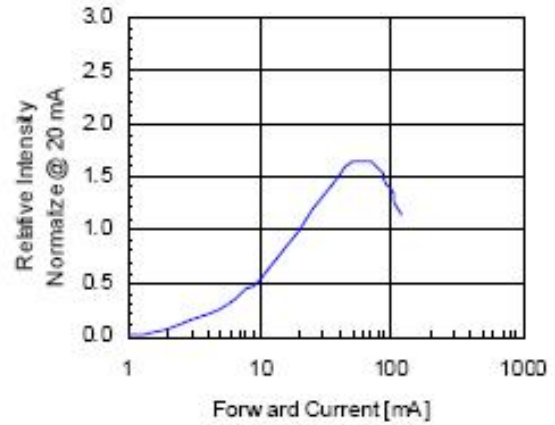


Fig 3. Forward Voltage vs. Temperature

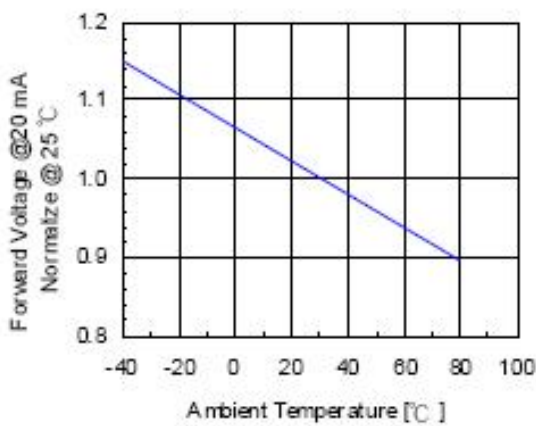


Fig 4. Relative Intensity vs. Temperature

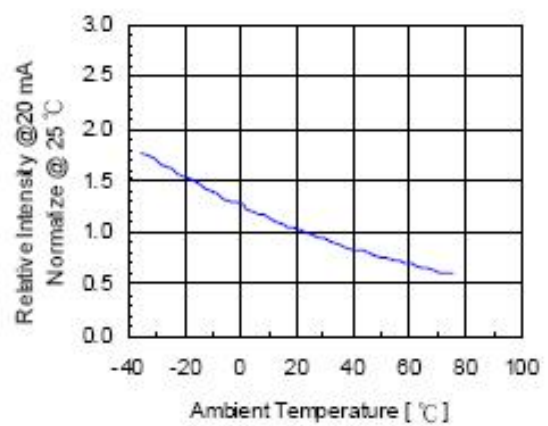
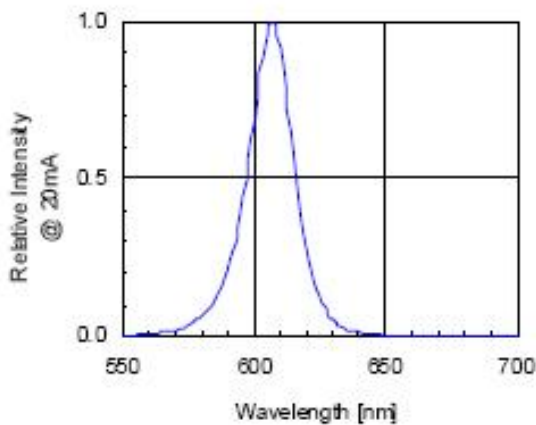
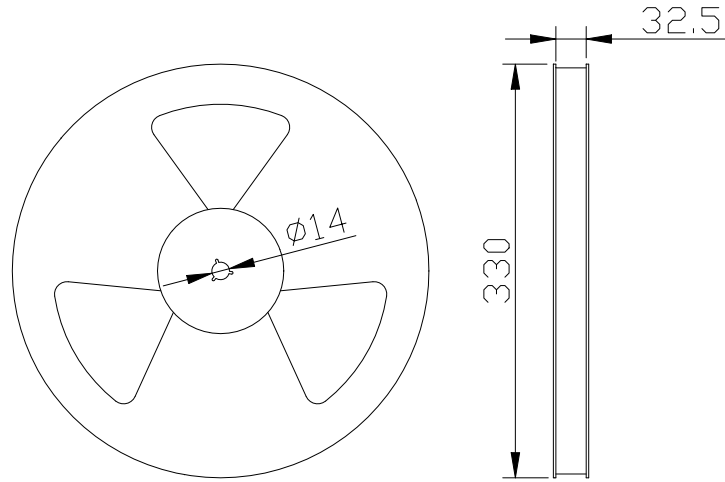


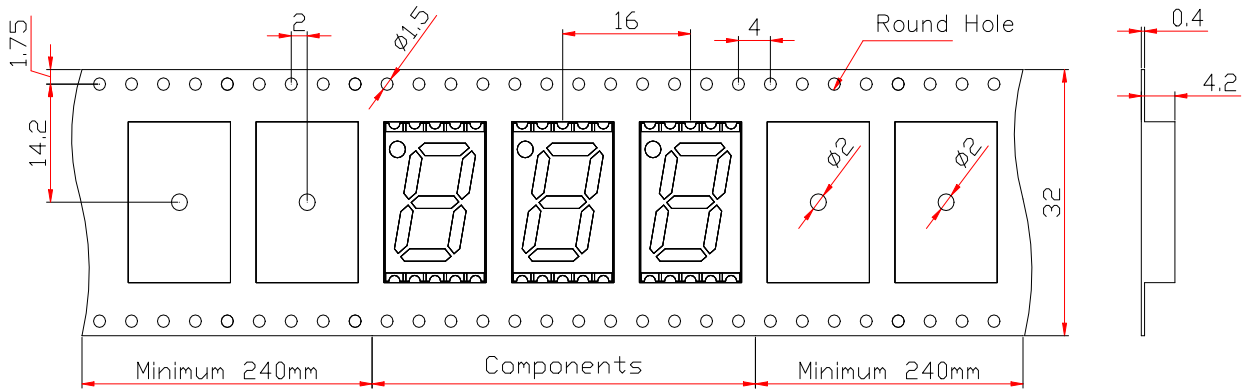
Fig 5. Relative Intensity vs. Wavelength



■ **Packing Reel Dimensions(mm):**

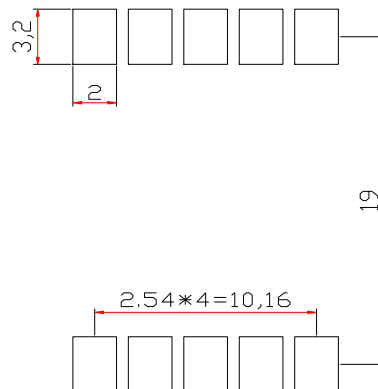


■ **Dimensions of Tape (Unit: mm)**



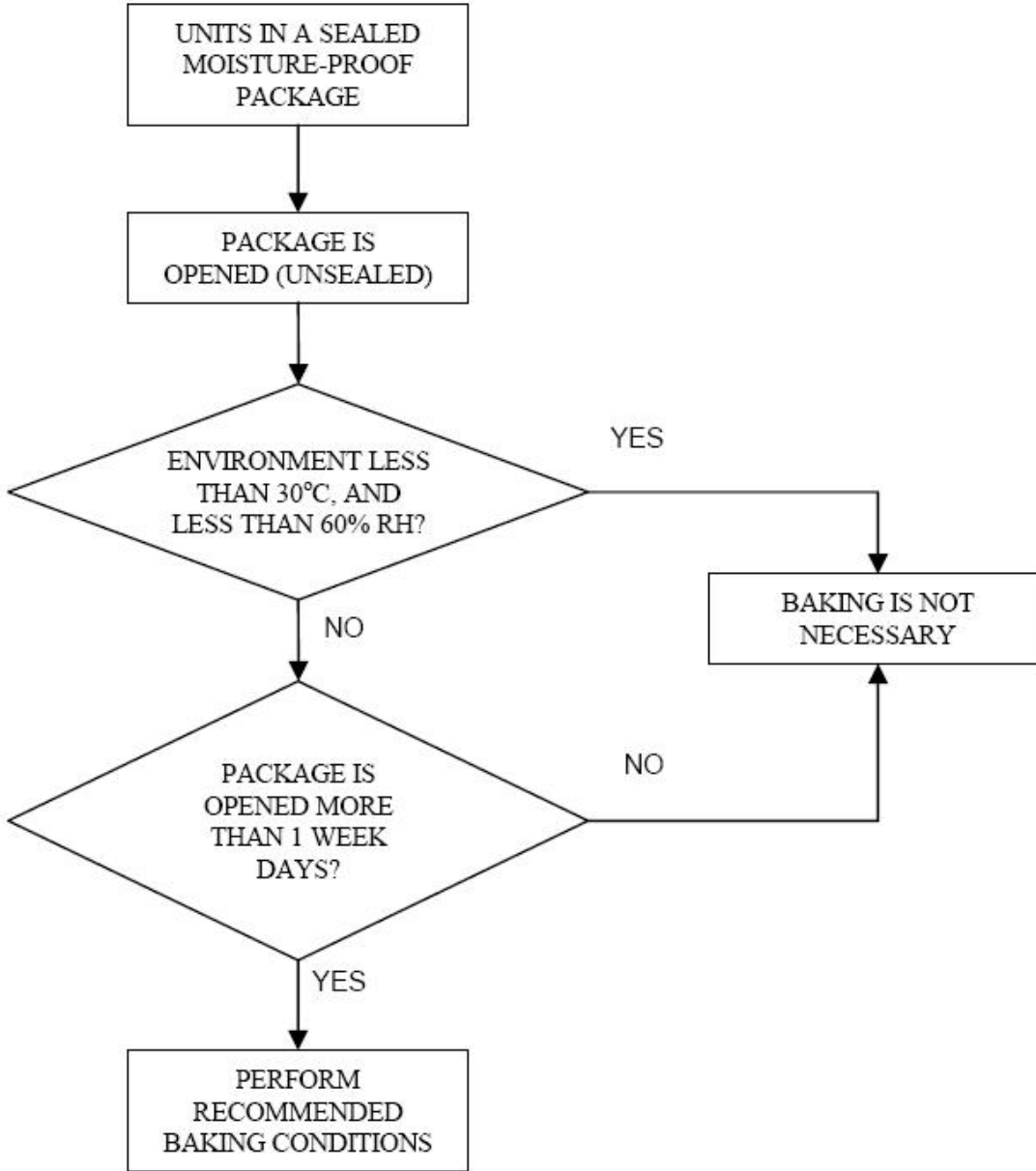
■ **One Reel contained 1000 PCS products:**

■ **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.**