

Data Sheet

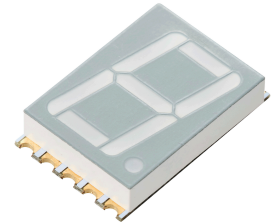
14.2 mm One Digit Display SMD

(Common Anode type)

Features

- 14.2 mm One Digit Display
- Long lifetime operation
- IC compatible
- Low power dissipation
- Gray surface & white segment or dot
- RoHS compliant

Photo



Applications

- Counting device
- Clock




Absolute Maximum Rating (Ta=25 °C)

Item	Symbol	Value	Unit
		Red/Yellow/Yellow Green	
DC Forward Current	IF	25	mA
Pulse Forward Current#	IFP	80	mA
Reverse Voltage	VR	5	V
Power Dissipation	Pt	65	mW
Operating Temperature	Topr	-30 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature (1.6 mm Below body)	Tsol	260 °C/3 sec	°C

#Pulse width Max.10 ms Duty ratio max 1/10

#Reflow time Max 3 seconds

Electrical -Optical Characteristics (Ta=25 °C)

BN	Color			VF (V)			IR(μA)	Iv(mcd)			λD(nm)		
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
				IF=20mA			VR=5V	IF=10mA			IF=20mA		
2903157	Red	R		-	2.1	2.6	100	5	13	25	625	630	640
2903158	Yellow	Y		-	2.1	2.6	100	8	16	25	585	590	595
2903159	Yellow Green	YG		-	2.1	2.6	100	5	13	20	565	570	575

*1 Tolerance of measurements of chromaticity coordinate is ±10 %

*2 Tolerance of measurements of dominant wavelength is ±1 nm

*3 Tolerance of measurements of luminous intensity is ±15 %

*4 Tolerance of measurements of forward voltage is ±0.1 V

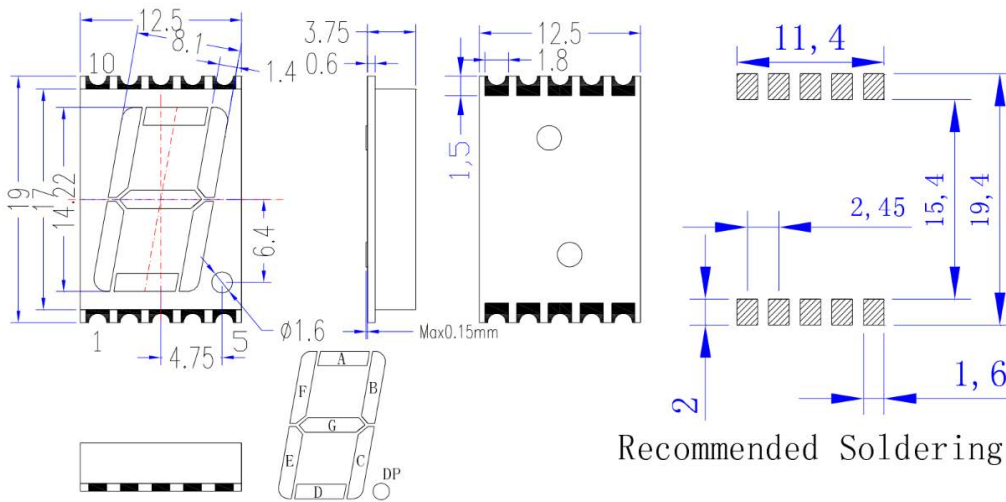
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Package Dimensions

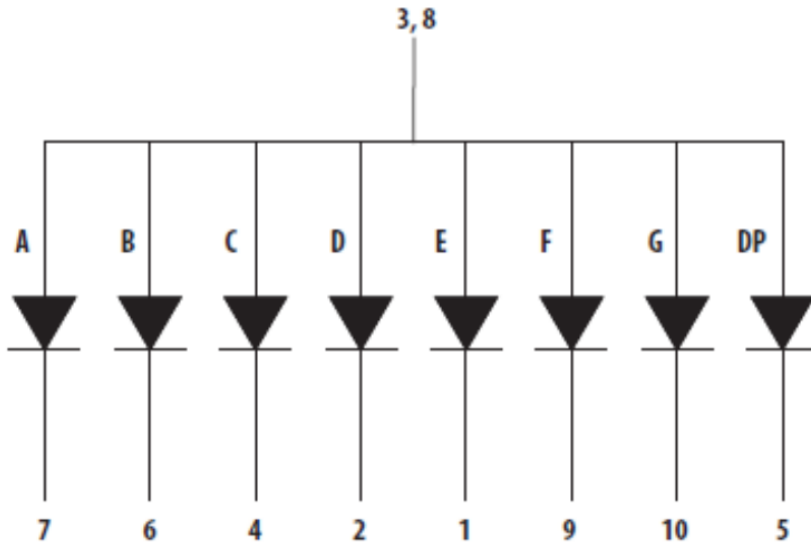
Common Anode type

Note: 1, Unit: mm

(Tolerance: ± 0.25 mm unless otherwise noted)



Recommended Soldering Pattern

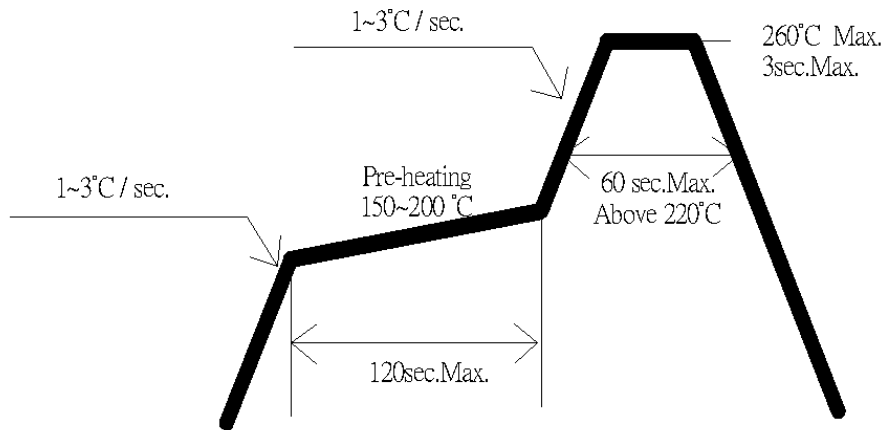


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Soldering Conditions

Reflow Soldering		Hand Soldering	
Pre-Heat	150 ~ 200 °C	Temperature Soldering time	350 °C Max. 3 sec. Max. (one time only)
Pre-Heat Time	120 sec. Max.		
Peak temperature	260 °C Max.		
Dipping Time	3 sec. Max.		
Condition	Refer to Temperature-profile		

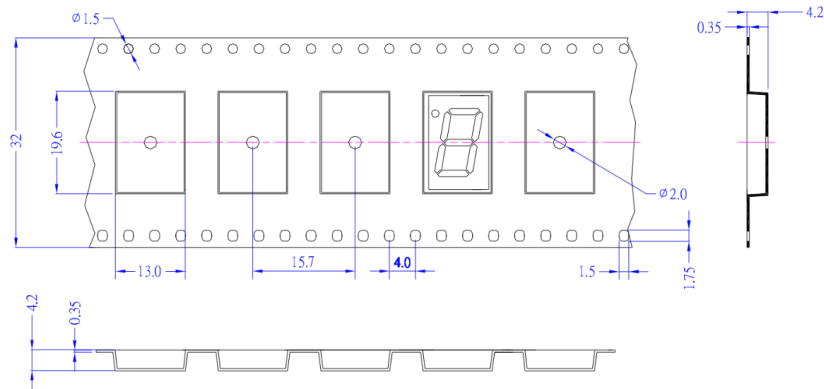
Reflow Soldering Condition (Lead-free Solder)



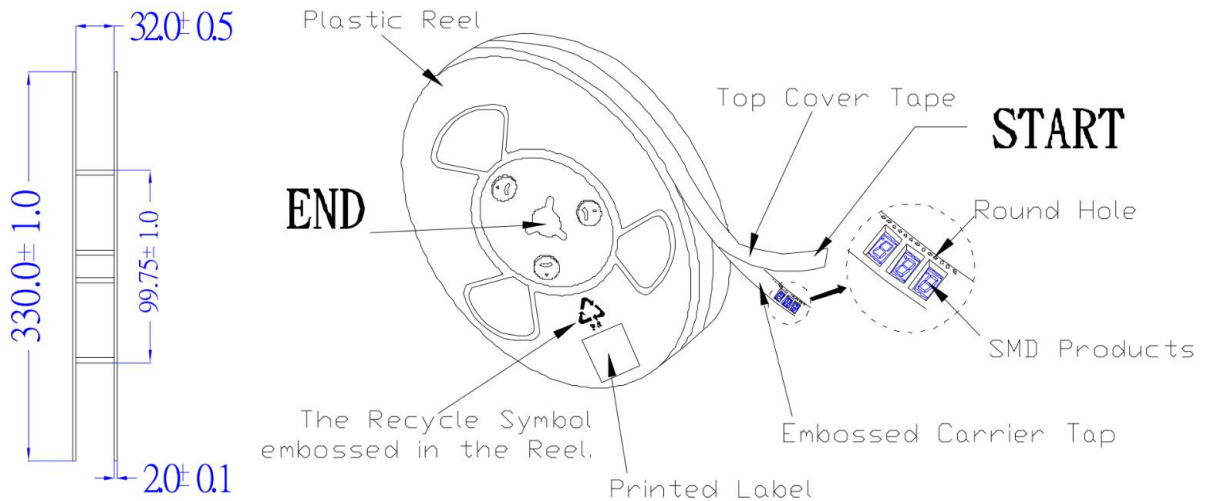
- Recommended soldering conditions vary according to the type of LED
- Although the recommended soldering conditions are specified in the above table, reflow, or hand soldering at the lowest possible temperature is desirable for the LEDs.
- A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.
- All SMD LED products are pb-free soldering available.
- Occasionally there is a brightness decrease caused by the influence of heat or ambient atmosphere during air reflow. It is recommended that the User use the nitrogen reflow method.
- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.

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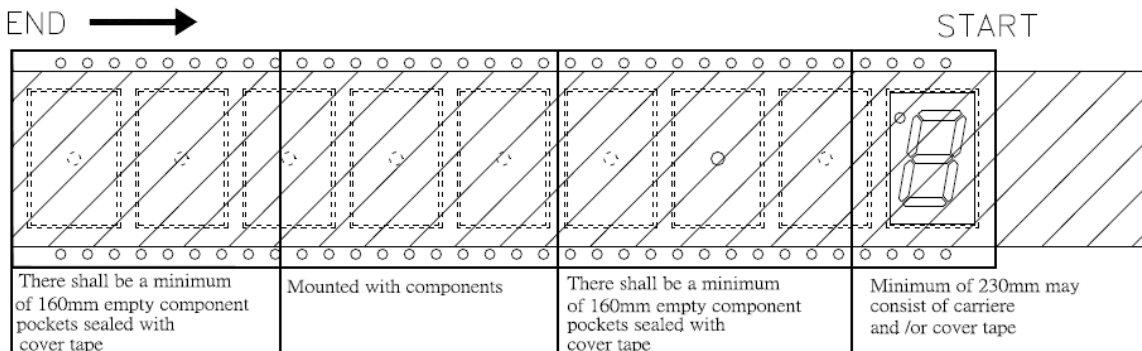
■ The Products In The Reel Of Direction(Unit:mm, Tolerance:±0.10mm)



■ Label Direction & Content In The Roll(Unit:mm)



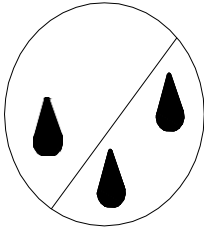
■ USER FEED DIRECTION



■ Package Criteria:

1. Total unit per reel is 1000PCS.
Max 5 reels/5000PCS are packaged in each carton

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CAUTION

This bag contains
MOISTURE-SENSITIVE DEVICES

LEVEL

3

1. Calculated shelf life in sealed bag: 12 months at $<40\text{ }^{\circ}\text{C}$ and $<90\%$ relative humidity (RH).
2. Peak package body temperature: Per product label
3. After bag is opened, devices that will be subjected to reflow solder or other high temperature process must be
 - a) Mounted within: 168 hours of factory conditions $\leq 30\text{ }^{\circ}\text{C}/60\%RH$
 - b) Stored per J-STD-033
4. Devices require bake, before mounting, if:
 - a) Humidity Indicator Card is $>10\%$ when read at $23\pm 5\text{ }^{\circ}\text{C}$
 - b) 3a or 3b not met.
5. If baking is required, devices may be baked for 20 hours at $60\pm 5\text{ }^{\circ}\text{C}$

Bag Seal Date: _____
If Blank, see adjacent bar code label

Note: Level and body temperature defined by IPC/JEDEC J-STD-020