OptoSupply
Light It Up

0.51 Inch Two Digit Display SMD

OSL2051A-IX (Common Anode type)

OSL2051A-LX (Common Cathode type)

■ Features

- 0.51 Inch Two Digit Display
- Long lifetime operation
- IC compatible
- Low power dissipation
- Black surface & white segment or dot
- RoHS compliant

■ Applications

- Counting device
- Clock

■ Absolute Maximum Rating (Ta=25℃)

Item	Symbol	Value		Unit
		W/B/TG	YG/Y/O/R/RA	
DC Forward Current	I_F	25	25	mA
Pulse Forward Current*	I_{FP}	80	80	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_t	90	65	mW
Operating Temperature	Topr	-30~ +85		℃
Storage Temperature	Tstg	-40~ +100		℃
Lead Soldering Temperature(1.6mm Below body)	Tsol	260℃/3sec		℃

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

*Reflow time Max.3seconds

■ Electrical -Optical Characteristics (Ta=25℃)

Part Number	Color			V_F (V)			I_R(μA)	Iv(mcd)			λD(nm)		
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
				I_F=20mA			V_R=5V	I_F=10mA			I_F=20mA		
OSL2051A-IW(LW)	White	W		2.8	3.1	3.6	100	30	60	-	6000K	8000K	10000K
OSL2051A-IB(LB)	Blue	B		2.8	3.1	3.6	100	6	12	-	460	465	475
OSL2051A-IG(LG)	True Green	TG		2.8	3.1	3.6	100	15	24	-	510	520	530
OSL2051A-IYG(LYG)	Yellow Green	YG		1.8	2.1	2.6	100	4	6	-	565	570	575
OSL2051A-IY(LY)	Yellow	Y		1.8	2.1	2.6	100	5	9	-	585	590	595
OSL2051A-IO(LO)	Orange	O		1.8	2.1	2.6	100	5	9	-	600	605	610
OSL2051A-IR(LR)	Red	R		1.8	2.1	2.6	100	5	9	-	625	630	640

***1 Tolerance of measurements of chromaticity coordinate is ±10%**
***2 Tolerance of measurements of dominant wavelength is ±1nm**
***3 Tolerance of measurements of luminous intensity is ±15%**
***4 Tolerance of measurements of forward voltage is±0.1V**

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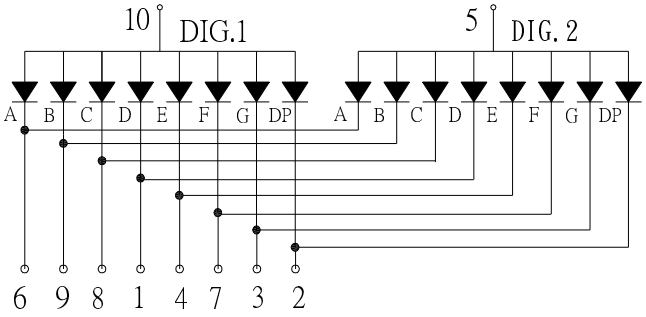
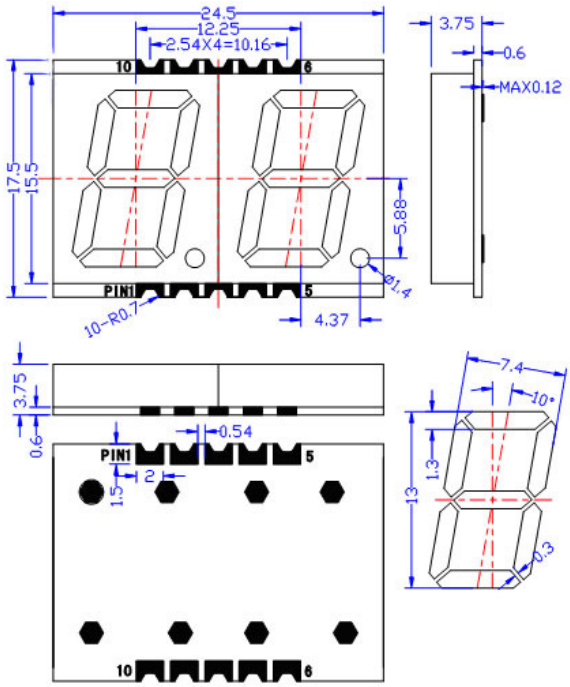
■ Package Dimensions

OSL2051A-IX
(Common Anode type)

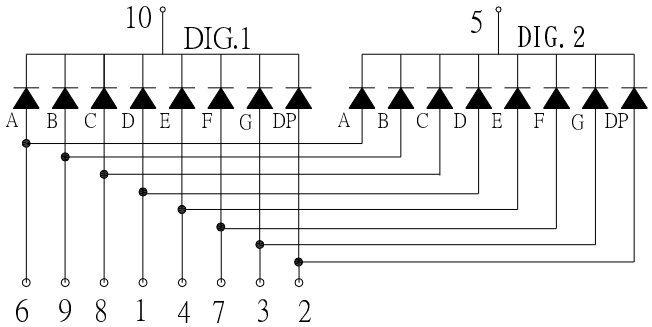
Note:
1,Unit : mm(Tolerance:±0.25mm unless otherwise noted)

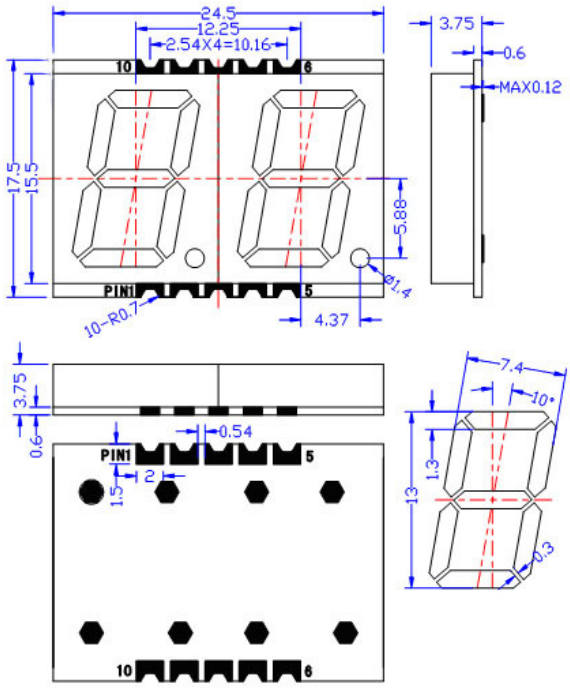




OSL2051A-LX
(Common Cathode type)

Note:
1,Unit : mm(Tolerance:±0.25mm unless otherwise noted)





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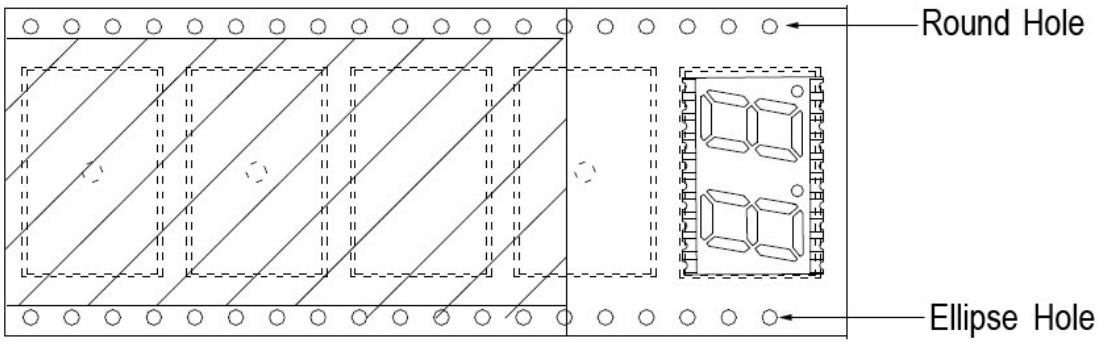
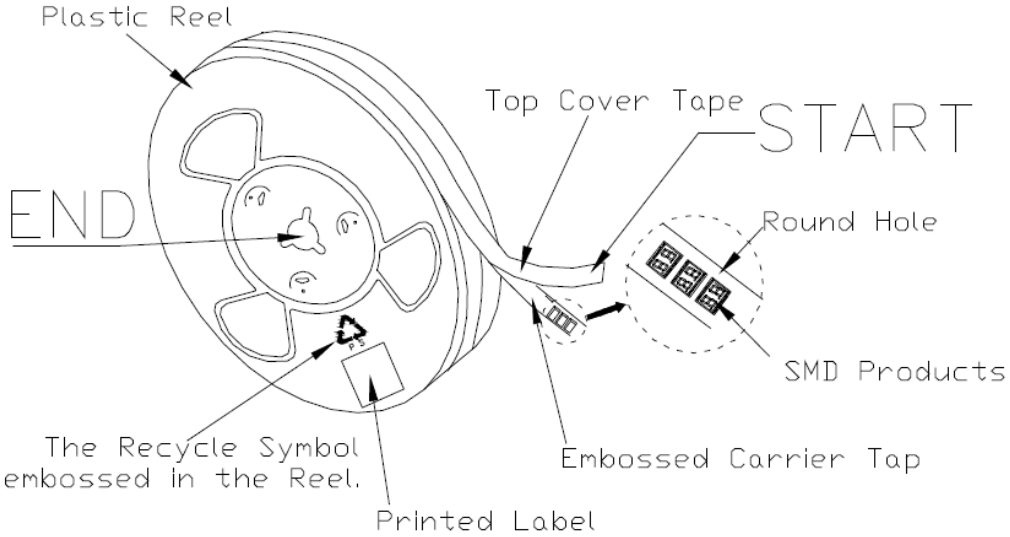
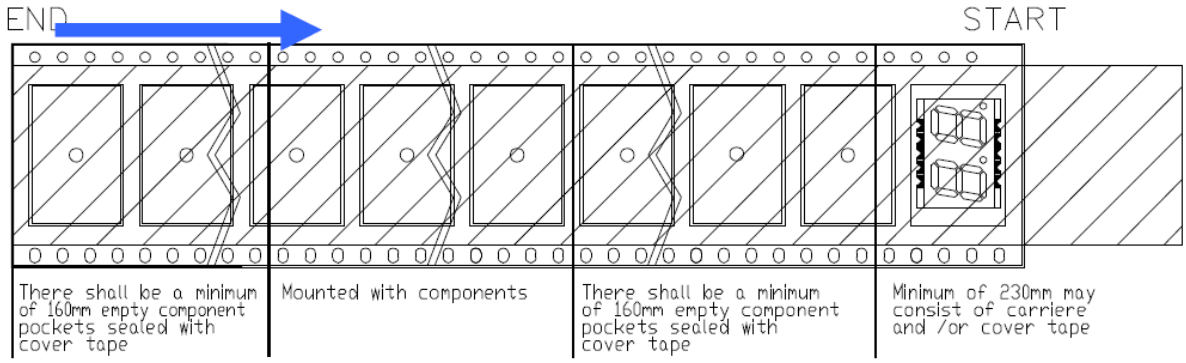
■The Products In The Reel Of Direction



■ Label Direction & Content In The Roll



■USER FEED DIRECTION



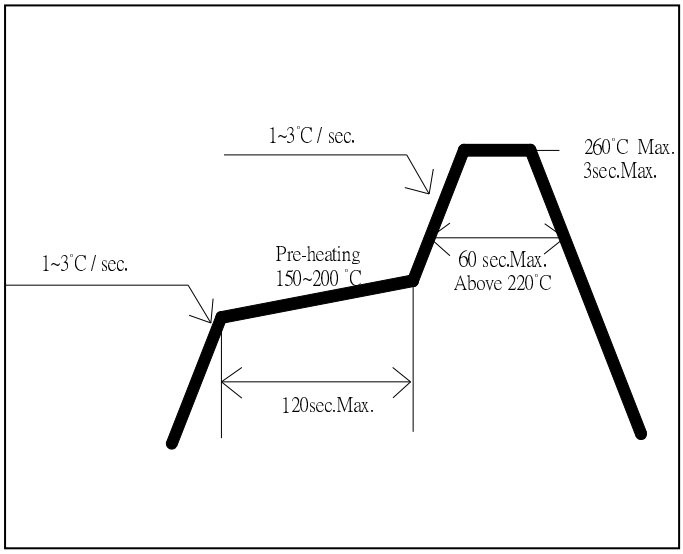
■ Package Criteria:

1. **Total unit per reel is 500PCS.**
2. **Max 5 reels/2500PCS are packaged in each carton**

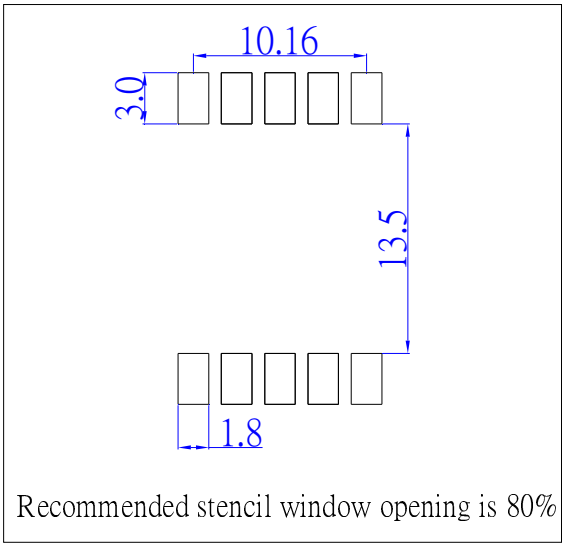
■ **Soldering Conditions**

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 Pattern(unit:mm)



*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.

CAUTION

This bag contains

MOISTURE-SENSITIVE DEVICES

LEVEL
3

1. Calculated shelf life in sealed bag:12 months at<40℃ 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≤30℃/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±5℃
   b)3a or 3b not met.
5. If baking is required,devices may be baked for 20 hours at 60±5℃

Bag Seal Date: _____

If Blank,see adjacent bar code label

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